

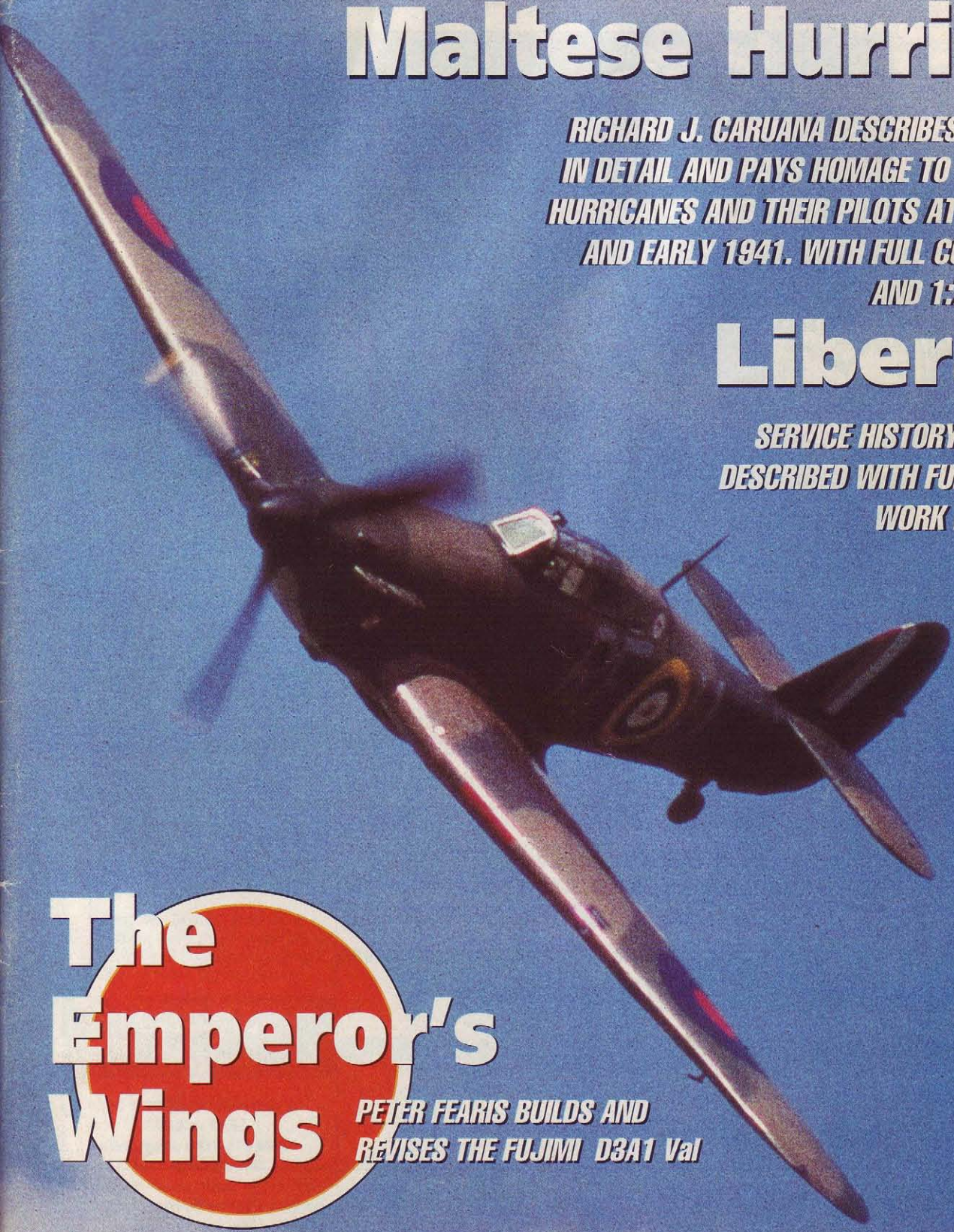
Scale Aviation Modeller

Maltese Hurricane

*RICHARD J. CARUANA DESCRIBES THE HURRICANE
IN DETAIL AND PAYS HOMAGE TO THE HANDFUL OF
HURRICANES AND THEIR PILOTS AT MALTA IN 1940
AND EARLY 1941. WITH FULL COLOUR ARTWORK
AND 1:72 SCALE PLANS*

Liberator

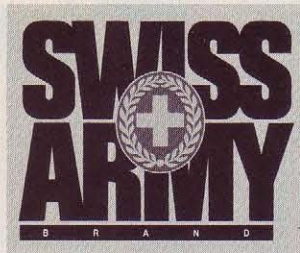
*SERVICE HISTORY AND VARIANTS
DESCRIBED WITH FULL COLOUR ART-
WORK BY MARK ROLFE*



**The
Emperor's
Wings**

*PETER FEARIS BUILDS AND
REVISES THE FUJIMI D3A1 Val*





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Vol.1 N°8 August 1995

COMMENT

As you will see from the masthead on the left, there have been some changes here at *Scale Aviation Modeller*. As of July 1st I retired gracefully from the position of editor, this decision was not taken lightly and involved several personal reasons, which I do not intend to go in to here.

Last November I took over the helm of *Scale Aviation Modeller* at short notice after the untimely death of Mike Keep who has been sorely missed. It was always my intention to act as editor on a temporary basis until someone was found to guide the magazine

onwards. I pride myself that we have managed to provide all of our readers with an informative product at a reasonable price. I will be remaining as part of the editorial team in the role of consultant editor and will continue to contribute articles on a regular basis.

The magazine will now be in the safe hands of Richard Franks, a man with the skill to build to build 2 dozen kits simultaneously and to deadlines! I hope that you will support him as you have supported me during the past 7 months and I say "Over to you Richard".
Sue Bushell

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News Update

ACADEMY/MINICRAFT have issued a 1/72nd scale AH-64A Apache at £7.99, a Boeing B-17E (RAF Coastal Command markings) for £17.99 and a B-17G "Nose Art" also at £17.99.

AEROCUB's 1/72nd scale range has recently increased with the Avro Anson C19/20, price £14.50, the Sea Otter £13.75, Saro Skeeter £6.65, FIAT CR20 £6.65, Fokker DVIII (E5) £6.65 and Fokker DVI (E5) also at £6.65.

In 1/144th scale, AIR CRAFT MODELS have released a new double kit containing the Mil Mi-6 "Hook" and Mil Mi-26 "Halo" helicopters. The models are vac-formed with white metal and the double kit costs £13.99. It is available from the manufacturer at Stables House, High Street, Swineshead, Bedford. MK44 2AA.

ARBA have the 1/48th scale Henschel Hs132 dive bomber on offer. This resin and white metal kit costs £23.80.

CONDOR's new 1/48th scale version of the 1/72nd scale He178 should be about soon. The 1/72nd scale one was excellent and this new one will, I am sure, be just as good. This injection moulded kit will cost £7.50.

DYNAVECTOR's 1/48th scale Sea Vixen has at last been announced and by the time you read this, they should be generally available. The kit is vac-formed with white metal detail parts and it should be excellent if their previous kits are anything to go by. The U.K. price is £29.99 plus £1.50 P&P and they are available from the manufacturer or specialist model shops.

EMHAR are releasing an F-94C Starfire (late version) in 1/72nd to follow on from the early version issued a while ago. The kit is a bit basic in a few areas, but the TRUE DETAILS resin cockpit tub can at least sort out the interior. The UK retail price should be

about £7.99.

ENCORE have issued a new injection moulded kit of the PZL P-24F/G and this is available at £6.99.

FINE MOULDS have announced a 1/72nd scale rendition of the Mitsubishi J8M1 Shusui.

GARTEX are releasing a Mitsubishi A6M5 Type 52 Hei Zero and a Mitsubishi J2M3 Raiden, all in 1/72nd scale. These are bound to be good kits, but very expensive in the UK!

HASEGAWA's release list for the next few months is quite extensive. In 1/72nd scale there will be the following kit:

- Mitsubishi T-2 with decals from AEROMASTER (22 Sqn 40th Anniversary scheme)
- Polikarpov I-16 type 24 SBD-3 Dauntless
- Kyushu J7W1 Shinden
- Kawasaki E7K1 "Alf"
- Mitsubishi G4M1 "Betty"
- Nakajima G8N1 "Rita"
- Kawanishi H8K2 "Emily"
- Kawanishi H6K5 "Mavis"
- Ki-15 "Babs"
- Ki-51 "Sonia"
- Nakajima Ki-27 "Nate"
- Ki-48 "Lily" c/w I-1 missile

In 1/48th scale there should be:

- F4U Corsair (with resin wheels)
 - P-51D (with resin wheels)
 - P-51K (with resin wheels)
 - Bf109G-2 (with decals by AEROMASTER)
 - SBD-3 Dauntless with photo-etched dive brakes
 - Learjet C-21 (USAF)
 - Cessna Citation
 - Falcon 10 (French Navy)
 - F-15J (JASDF 204 Sqn 10th Anniversary scheme)
 - F-4J and F-4EJ Phantom's (both listed as having "1 piece canopy")
 - Macchi MC205 "Veltro"
 - Grumman F6F-3 Hellcat
 - Nakajima Ki-44 "Tojo"
 - Kawasaki Ki-100 "Tony"
 - Mitsubishi A6M3 Type 22 KO Zero
 - Junkers Ju-87B-2 c/w Ski's (with decal from AEROMASTER)
- In 1/200th there will be a JAL MD11, a FINNAIR MD11, a FINNAIR DC-10 and a JASDF C-130 Hercules.

HIGH PLANE the company who brought you the Wirraway and P-40 lat year have just released a new injection moulded 1/72nd scale • Kawanishi N1K1 Koyu "Rex". Its not inexpensive however at £10.95.

HI-TECH have issued a 1/48th scale A-26K conversion set for the MONOGRAM A-26 kit in the USA. The set consists of resin and white metal pieces and costs 100 francs, so will be in the £20 bracket in the UK. Still with HI-TECH, they have released some superb

1/48th scale resin Daimler Benz engines for the late series Bf109's. They come complete with a new vac-formed cowling and the engine is detailed with white metal. The U.K. price should be about £7.70 and they are available in the UK from Hannants in Lowestoft or Mary-L Models in Bristol.

MAUVE have followed on from their P-40N kit with a new Curtiss Kittyhawk III in 1/48th scale. The strength of the Yen against the pound has, however, meant an increase in both these kits prices. They were originally £17.95, but Poketbond the UK importer recently informed me that they will now be £19.99

The PRO-SERIES from MONOGRAM should release the F117A Stealth very soon. The UK price is quoted as £21.50 and I wonder just now much really "new" material will be in it.

MPM have beaten Fine Moulds to it and they have already issued a limited run kit of the Mitsubishi J8M1 Shusui (£9.99). Other new to the range include the Ryan Fireball and Focke Wulf FW190V-18 (Kangaroo), both of which are also £9.99 each.

MRIYA MODELS from the USA. These were noted a while ago in American magazines, but I noted in ESS-JAYS advert that they will be doing them and the first kit should have been released in July. First will be the MiG-19PM to 1/48th scale, followed by the Martin AM-1 Mauler and this should be followed by a 1/72nd scale Tu-95 "Bear". All the kits are injection moulded and the MiG-19 is quoted at £27.95.

RCR MODELS have announced a series of 1/48th scale resin kits of Italian aircraft and they include a Fiat G-55 Centauro, G.59-4A Fighter, G.59-4B Trainer and Breda 65 bomber. All of these kits come with photo-etched detail components and they should be available in the from Hannants.

REVELL have modified their old 1/32nd scale Me262A to offer you the Me262A-1a/U4 cannon armed bomber destroyer, or the Me262A-1a/U3 photo-recce version with camera's in the nose. At £12.50 it not bad value for money, but the tooling are a bit long in the tooth now and the modifications to the

kit to make these variant are not permanent.

SPECIAL HOBBY from the Czech Republic have now issued a few more "Luftwaffe 46" types with the Blohm und Voss P.215 Nachtjager and Focke-Wulf PTL Flitzer both to 1/72nd scale. These injection moulded kit should cost £12.95 for the P.215 and £9.95 for the PTL.

TAMIYA have released their new 1/48th scale North American P-51D Mustang and Focke-Wulf Fw190D-9 kits in the USA. I don't know the US price, but the UK one is supposed to be £17.99, an increase of £2.00 over the previous kits in the series, its the strength of the Yen against the Pound again I am afraid.

TRANSPORT WINGS are issuing a vac-form Concorde model to 1/72nd scale. This model is pre-cut and therefore poses far less work than usual vac-formed kits, however the size of it (1/72remember!) means that it expensive at £63.15

TRUE DETAILS has extended their resin detail range with the issue of an 1/72nd F-94C cockpit tub (for the EMHAR kit), a 1/48th P-40N cockpit tub (for the MAUVE kit) and a 1/72nd cockpit tub for the Grumman F4F Wildcat (HASEGAWA kit). A range of resin bombs in 1/72nd, 1/48th and 1/32nd have also been announced. The most recent resin bulged wheel sets include, He162 (No 48078), the Lysander (48079), the Nakajima B5N (48080), the Kawasaki Ki-45 (48081) and the Savoia Marchetti SM-79 (48082). All are to 1/48th scale and all, bar 48082 cost £2.95 (48082 costs £3.50).

New from VENTURA models in New Zealand is the Supermarine Seafire FR47. This limited run injection moulded kit is in 1/72nd scale and is available in the UK via Hannants and Mary-L Models

CALLING ALL AIRLINE MODELLERS! A final note to all modeller out there interested in airliners. There is a new quarterly publication just for you, which has started up in CANADA. If you are interested drop a line to;

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MARKHAM, ONTARIO,
CANADA. L3P 6T5

New on the shelf



MITSUBISHI A6M5 ZERO

TECHNICAL DATA

Manufacturer : Revell
Scale : 1/72nd
Price : £2.95
Type : Injection Moulded
KIT No : 04126
Plastic Parts : 17
Clear Parts : 1
Decal Options : 1
 Tsububa Air Corps

Now here is a real "blast from the past". Originating way back in the 1960's this kit from Revell must be one of the oldest in their range (but I am sure I will be proved wrong!). No upgrading of the mould has occurred and the only new items are the decal sheet and box. As with all kits of this period it is festooned with rivets and has a lovely thick canopy.

Construction

Well with only seventeen pieces, what can I say? This is a very basic and simple kit to make. There is no cockpit interior at all, as this is from an era when all you got was a simple "plug-in" pilot figure, who fits onto pegs in the fuselage sides. The tailplane is the slot in type, as you may have seen in the Lindberg kits, so although it reduces the tedious job of lining everything up, there will be a gap all the way around it once its in place. The undercarriage features separate oleo legs and undercarriage doors. The doors are quite thin, but the detail on the oleo's and the wheels is almost non-existent. The engine cowl is moulded with an integral engine, and although its detail is not bad, it still lacks the finesse and depth which you would get if the two items were moulded separately. Overall fit of all the parts is very good and there was little need

for filler. The rivets all need to be sanded off, but the fabric effect on the ailerons is very well done indeed.

Colour Options

Only one option is given with this kit and this is an A6M5 type 52 operated by the Tsububa Air Corps. The aircraft would be Navy Green on top with Navy Grey underneath and I utilised some old Humbrol authentic on my example. The leading ID strips come as yellow decals, although you may prefer to paint these on instead.

Decals

These are Revell's usual thick, matt examples. The carrier film is very evident and it is very difficult to remove all the film, or reduce the likelihood of silvering with the use of a decal solvent. The dark upper surface colour does not help here and I found most of my markings did silver once dry. Decal Rating : five out of ten.

Conclusion

This is an ideal beginners kit, it is simple and easy to make, with little need for filler. Its uncomplicated manner and somewhat over accentuated lines and rivets will probably make it popular with the younger modellers and with the arrival of super up-to-date versions of the entire Zero family from Hasegawa, I doubt whether many serious modellers will consider this kit. If however you have limited money to spend and don't mind a bit of extra work, this still makes up into a nice little rendition of the Zero.

Recommendations.

Definitely a kit for the beginner and younger modellers, plus those with limited finance, or as the basis for a major conversion. I think that after 30 years this kit still stands up well and makes up into an respectable little model. My thanks to REVELL (GB) for the review sample. *M.Sage*



SEAFIRE MK XV "A FRAME HOOK"



Following on with his seemingly never ending range of Spitfires, Malcolm Laird has now produced the Seafire Mk XV. This is an entirely new kit and it includes a nice set of Ventura decals to go on the finished product, plus two Falcon canopies.

Construction

If you have made a Ventura kit before you will be aware of

their quality. However if you have not, be warned these are limited-run low volume injection moulded kits. The parts have heavy flow runs on the inside of most pieces and the thickness of the sprues will frighten the unwary! As Ventura points out though, the secret to making the kit is careful part preparation before cementing, rather than using quantities of filler after! Tidying all the pieces up and

removing them from the sprue will take quite a while, although its time well spent. If your expecting Hasegawa style assembly and detail here, forget it. The cockpit only consists of the seat and a metal control column. If you want more you have to make it up yourself. Unlike the late series Spitfires from Fujimi the upper engine cowls go on very well in this kit, although they are almost identical in style and moulding. The wings need to have the leading and trailing edges thinned down before assembly and you may also like to box in the undercarriage bays. Unlike their kits in the past and because of possible restrictions on white metal in the USA, this kit has the merest number of metal parts. This does mean that the undercarriage legs and "A frame" hook are not in this medium, instead they are in plastic and this does lose a little in the translation. Wing fold detail is included within the instructions, so if you want your model with the wings up, get scratch building! With most of the major assembly done, plus any filler required, I fitted the canopy. This is supplied as a vac-formed item and two are included, just in case you get it wrong (hard luck if you get it wrong twice!). After a little adjustment to both cockpit aperture and canopy, it fitted in place very well. The last jobs in assembly are to make up the propeller and spinner, add the tail wheel and fabricate its doors from plastic card, fit the undercarriage and add the

aerial mast or whip aerial depending on which option you are making.

Colour Options

The kit comes with three colour options. The first is SR520, modelled early in its career with the French Navy when it carrier the fuselage code IF.23. The second is also SR520, but a later one when it was 54.S. The final option is PR434 of 833 Sqn, RCN.

All of these aircraft are Extra Dark Sea Grey upper, with Sky underneath and up the fuselage sides. I used gloss paint from an authentic range, with Revell's Fiery Red (31) for the spinner.

Decals

These are Ventura's own product, another string to Malcolm's bow. They are not bad and are glossy, although the carrier film is very evident and the images are quite brittle. The registration or colour overlay is their worst area though. The French roundels for the wings were very bad in my example, once applied the difference part way across the red section of the roundel was such, that I had to later over paint them just to get some consistency. The decals don't react much to MICRO Sol and Set or AERO SOL and SET, and this is a real headache with the rear rudder stripes for the French version. The decals either

side of the rudder need to adhere to a very complex



shape and unfortunately this just did not happen. I bashed and cajoled them into place with no success and in the meantime I had damaged them in numerous places. In the end I got them basically in place and once dry, I repaired the damaged areas with paint. Decal Rating five out of ten

Conclusion

As the box top says this is not a kit for the novice and it is directed at the experienced modeller. If you have never had a go at limited-run kits, don't pick this as a first. However if you know the product and are alright with its strengths and weaknesses then this is the kit for you. The rarity of the subject coupled with a reasonable price for a kit of this nature, make it a must for any Spitfire fan.

Recommendations

Its nature is such that this is a kit I can only recommend to

the experienced models out there. It is not for the novice or intermediate, or as an introduction to this type of kit production.

FOR EXPERIENCED MODELLERS ONLY

My thanks to John at MARY-L Models in Bristol for supplying the review sample.

D. Andre

TECHNICAL DATA

Manufacturer : Ventura
Scale : 1/72nd
Price : £ 10.49
Type : Injection Moulded Plastic and White Metal.
Kit No : V0512
Plastic Parts : 27
White Metal : 3
Clear (VAC) : 2
Decal Options : 3 = 1x RCN & 2 x French
Supplier : Mary-L Models !
 100, Home Orchards,
 Cotswold Mews,
 Yate, Bristol BS17 5XC
TEL/FAX: 01454 880396

YAKOVLEV YAK-15



Once again this is another re-boxing of a PM kit under Revell's, Matchbox label. There are no revisions to the kit at all and all that is new is the decal sheet.

Construction

This could not be easier, as the kit has only 20 piece and these can all be cemented together following the simple six stage instruction sheet. There are no bulkheads in the fuselage, behind or in front, so these will

have to be added. There is no decking behind the pilots "armchair" either! A lot needs to be added to the cockpit interior as it is very spartan. The remainder of the assembly could not be easier and you could make up the entire kit, excluding painting and drying, in under ten minutes!

Colour Options

Once again another case of "could not be easier". There is only one option in the kit, an aircraft operated in May 1947 near



Moscow. I suspect the aircraft is in standard Russian green and grey colours, although the instructions show a mix of 50/50 Greenish Grey (67) and Lake Green (48) on top, with a 70/30 mix of Light Green (55) and Matt Grey (57) underneath. I opted for the old Humbrol "Authentic" range though, using "Topsurface Green" and "Undersurface Grey" on my example.

Decals

These are the matt versions which seem almost standard in Revell kits of late. They have a lot of carrier film to remove, but Russian stars are easy to cut around! The number on the nose and stencil on the tail proved no real problem and each image settled onto the model

with a liberal application of Aero Master's AERO Set and Sol solutions. Decal Rating six out of ten

Conclusion

This is a simple and effective kit, which will make up into an attractive little model. The ease of assembly and small number of bits, mean that it is a kit I can recommend to all, just be aware of those decals!

Recommendations

Well, I have said it above, this is truly a kit for all and an excellent starting point for people new into the hobby.

My only reason for any further comment is the price. At £4.50 this example is over £1.00 dearer than the original PM kit, which incidentally is still available! I

would have hoped for a compatible price between these two companies, with no "hype" of the price by Revell, but alas not.

Recommended to all, if you can't get the cheaper PM version?

Thanks to REVELL (GB) for the review sample.

TECHNICAL DATA

Manufacturer : Matchbox
Scale : 1/72nd
Price : £ 4.50
Type : Injection Moulded Plastic and White Metal.
Kit No : 40143
Plastic Parts : 19
Clear Parts : 1
Decal Options : 1
 01.05.1947 Moskau, USSR

GLOSTER METEOR MK IV



TECHNICAL DATA

Manufacturer: JP Productions
Scale : 1/72nd
Price : £ 23.00
Type : Resin/Etched Brass
Etched Parts : 13
Clear Parts : 1
Decal Options : 1-63 Sqn, RAF, 1950 (VT219)
Supplier : Avia Imports, 56a Priory Road, Peterborough Cambs. PE3 6EE

You may be familiar with the Belgian company of JP Productions, from their 1/72 Volkswagen Transporter or 1/48th VW Minibus, however

this 1/72nd Meteor kit is entirely new.

Construction

On inspecting the kit you will soon appreciate the quality of the casting. No air bubbles or surface imperfections anywhere on my example and the recessed panel lines are superbly done.

Being resin there are only a small number of pieces, but the fuselage is split vertically and it is hollow cast. Starting with the cockpit area first, this consists of a floor, rear bulkhead, seat and control column. There is a complex etched brass instrument panel, although to

be fair I should say "fiddly" as in 1/72nd building it is very tricky. No instrument faces themselves are included in the form of acetate or any other medium, which is a shame when you consider their applicability in such an etched instrument panel. A little resin gyroscopic gun sight is also included and you will have to add the clear reflector element from clear stock.

The undercarriage units are resin, with separate mud guards and etched brass support struts. This assembly is also fiddly, as it is difficult to bend the straps around the mudguard and secure them in position without getting glue every where (well I did anyway!). The fit of all of the pieces within the kit is a real high point and I must admit that in most places this kit equals injection moulded plastic. Now I say "in some places", as the fuselage to wing joint is a little out and it was one of the few areas I used any filler on at all. The entire rear of the fuselage and rudder is separate and I thought its joint would be unsightly, however once again the fit is so good,

that it was hardly noticeable. You will find that the front engine nacelles don't fit all that well, in so much as the cut-outs for the leading edge of the wings are too big and you will therefore have to use a bit of filler to rectify them.

There is only one vac-formed canopy in the kit and this is the only bit I would change, as I like to see two included, just in case you do slip with the scalpel! The canopy was not that clear, looking for all the world like it was greasy, so I polished it with a little toothpaste and it came up lovely and clear. The fit of it to the upper decking is very good and had I had the time I really think that I should have positioned it open to show off the lovely cockpit interior.

Colour Options

As this kit comes in two versions, either the RAF, or Belgian A.F example, you only get the appropriate markings in each kit. There is only one option per kit and as my review example was the RAF one, I had VT219 an aircraft operated by 63 Sqn in 1950. The aircraft is

simply aluminium overall and I used Revells version (99) applied with an airbrush.

Decals

The decal sheet included with this kit may be small, but it is of excellent quality. At first I was a little concerned as all the images are matt, however their application was a bit of a revelation to me. Once free from the backing paper they adhered to the model like a second skin and I was amazed by the lack of need to remove the carrier film. I did trim certain areas, well it's hard to let old habits die!, but others, such as the areas between the wing walkway markings, were simply lightly slit with a new scalpel blade and then AERO Sol decal solution was liberally applied and this did the trick. The colour density on all the roundels and

fuselage checks was excellent, there was no seepage of colours underneath and none of the images were out of register. Decal Rating nine out of ten

Conclusion

This is certainly a quality product, well cast with beautiful detail and excellent decals. The entire package was

very enjoyable to make and the finished product is very impressive. All this quality comes at a price however and this is probably the models only problem. At £23.00 it is not an inexpensive kit, however when you consider the cost of converting any existing model and then upgrading it to this standard of detail, you would probably have spent more anyway!

Recommendations

This kits ease of assembly would seem to make it suitable for all, but the size and complexity restrict it to the more experienced modeller. The price however will be its most restrictive feature and I suspect it will put many people off, however

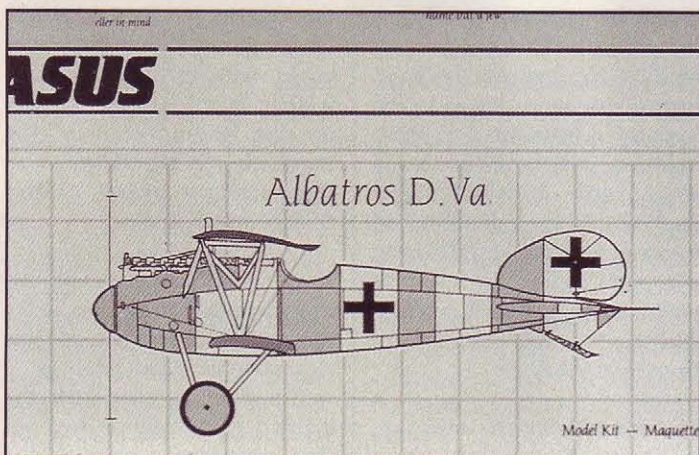
just consider how much that conversion would cost and realise that you are getting a quality model here. If you can live with the price you will not be disappointed by the kit.

Highly Recommended

My thanks to Mike at AVIA IMPORTS for the supply of the review sample.



ALBATROS D.Va



TECHNICAL DATA

Manufacturer: Pegasus

Scale : 1/72nd

Price : £ 9.99

Type : Limited Run Injection moulded plastic & White Metal

Kit Number : 1024

Parts : Plastic & White Metal

Decal Options : 1

Contact : Pegasus.

Lancaster House, P.O. Box 50
Whitstable, Kent. CT5 2UX

Tel : (01227) 277569

excellent standard. The kit is made in his usual soft grey plastic, with white metal detail parts and one decal option.

Construction

Unlike the Roland this kit is in the usual Pegasus form, in so far as it is intended for serious modellers with experience and is therefore a little complex to make.

Your initial task is to spend some time removing the parts from the sprues and cleaning them all up. The plastic is quite soft so there is no need for much force, but there is a need for extreme care.

Construction is very similar to the Roland D-II, the cockpit floor is detailed with a bulkhead and instrument panel, seat and control column. Onto this goes the little white metal engine and care is needed to ensure the correct alignment of it with the hole in the upper fuselage halves. The whole thing is then added to one fuselage half and the other is mated to it. The tailplane and fin are added and all joints dealt with. The lower wing is added to the cut-out in the fuselage and its joint is blended in with filler. The white metal Spandau is also added to the cut-out in the upper fuselage decking.

I now turned the model upside down and added the undercarriage and it was here I had problems. No matter how I tried or how blue the language got this assembly would not stick together properly. I simply could not get it all aligned right, so in the end my temper went and I left it to set as it felt fit! If you make this model, make up a card jig to align it all as I suspect this is the only answer.

The rest of assembly was easy,

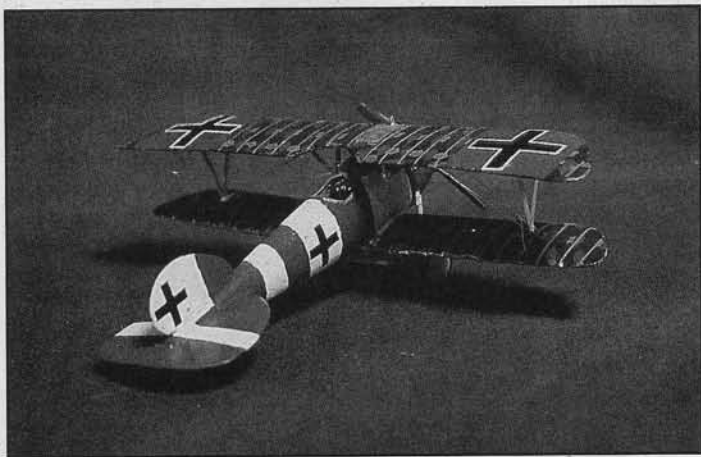
although before all was assembled I had applied the decals etc as it makes everything so much easier.

Colour Options

Once again the notes on the colour scheme are included on the edge of the box. There is one decal option with this kit and it is the personal aircraft of Lieutenant Helmuth Dithery of Jasta 40. The aircraft has five colour lozenge fabric on both the upper and lower wings, with a green and white striped fuselage and tail. The bands on the upper and lower wings, around each iron cross, are noted as being in the same green as seen on the upper lozenge fabric, not Lime Green as usually stated.

Decals

The decals with this kit only include the basic markings unique to the aircraft. There is no lozenge fabric decals included with the kit, however they are available from Chris Gannon separately. The lozenge fabric decals are very good, the best on the market at present, and don't forget that they were changed slightly from the



examples we reviewed in Vol 1 Iss 5, so don't be put off by the comments there.

Applying the decals can be a little difficult, as you are applying large panels of it

straight onto a wing. The decals themselves are quite thin and adhere well to the models surface, although you should ensure you have a new (very sharp!) blade in your scalpel for any trimming, as they tear easily. Decal Rating= seven out of ten (kits only)

Conclusion

Well, although I had some problems with this kit, I still enjoyed it. The standards set by Pegasus are still met by every new kit Chris issues and they all certainly sell very well. Remember too that all Pegasus kits are restricted to a limited run

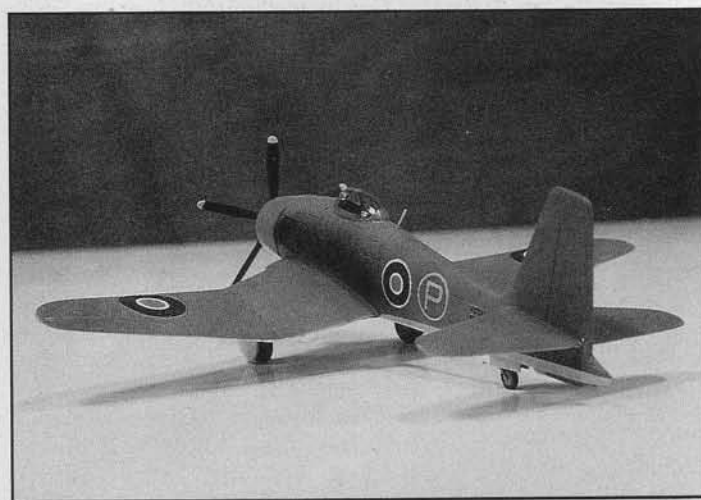
of 1,000, so once they are gone you will have to pay a "collectors" price for it, in other words get one while you can!

Recommendation

This is another nice kit from Pegasus. If you are familiar with the product, have the experience and like the subject matter, drop Pegasus a line and order one, you will enjoy it.

Recommended

My thanks to Chris Gannon of PEGASUS for the review sample .M.Sage



BLACKBURN B-48 FIRECREST

TECHNICAL DATA

Manufacturer: Magna Models

Scale : 1/72nd

Price : £ 17.72

Type : Resin, White Metal and Vac-Formed Plastic

Kit Number : 2372

Resin Parts : 8

Metal Parts : 17

Vac Formed : 2

This is a new multi-media kit from Magna Models and it follows on from their range of Firebrands. As usual the kit is a combination of resin and white metal parts, plus vac-formed canopies. Unlike previous issues however, this example does include some white metal parts for cockpit detail, a very welcome addition. The kit does not include decals.

Construction.

As usual with Magna kits there are no step-by-step instructions for the construction of the model, instead you get a sheet of A4 with a written text and a few scrap diagrams. As with any resin kit a few hours are required to clean up all the pieces, removing pour points from the larger pieces and then cleaning up all the edges. The white metal parts are alright, but still a little rough in places. You have to remove all of the block from the base of the metal seat, otherwise its top will not clear the inside of the canopy. The tail and rudder assembly sequence can be a little tedious and the area needs quite a bit of filler. Considering the complex nature of this area, with regard to the tailplanes and rudder, this is not an easy area to sand in. Missed off the instructions

is the white metal ventral intake, this is a metal component and its position is covered within the narrative of the instructions; just don't look puzzled when you first come across it!

There are no real problem areas with the kit, although the prop blades are all a bit unique, so you do have to spend some time levelling them all up. The vac-formed canopy is very clear and two are provided in the kit just in case you make a mess of the first one.

The only really disappointing element of this kit were the engraved panel lines. They are very "un-straight" to put it mildly and it really does spoil the model. I have made most of the recent kits from Magna and I will commend them for improvements they have made and the upgrades in the pieces included with the newer releases but it is all of little use when the panel lines on the wings look as if they were applied by someone who was 14 pints over the limit! If you are reading this Magna (which I am sure you are), please, please get the panel lines straight as I am sure most modellers would prefer not to have to re-scribe the entire kit.

Colour Options

As I said at the start there are no decals with this kit, but the colour scheme for the prototypes is indicated on the instructions. It is here that a slight problem

arises; the instructions show the aircraft in Extra Dark Sea Grey upper surfaces with Sky underneath. The upper surface colour is fine, but the lower surfaces on this aircraft (as a prototype) are yellow. I used Xtracolour ED SG (X5) with Humbrol Yellow (Matt 24).

Decals

There are no decals with the kit so you have to find these out from your spares box. The "Royal Navy" legend came off Almark sheet A19, as did the tail number. The type C and C1 roundels were from Modeldecalsheet number 41 and the yellow prototype "P" came off Almark sheet A23. I did not have the Modeldecalsheet for the under wing serial numbers, so I utilised some examples off a sheet of Letraset instead.

Conclusion

Not a bad kit, but one which still requires a good knowledge of the subject and media to make properly. Those panel lines do spoil the kit for me and the amount of work required to make it does mean it is not one for the beginner.

Recommendation

For the more experienced amongst you.

My thanks to MAGNA MODELS for the review sample.

FOCKE-WULF TA183 "HUCKEBEIN"



TECHNICAL DATA

Manufacturer: Revell
Scale: 1/72nd
Price: £ 5.75
Type: Injection Moulded Plastic
Kit Number: 04343
Plastic Parts: 22
Clear Parts: 1
Decal Options: 2,
 Both Unidentified
Supplier: Revell (GB) Ltd
 Foster House, Maxwell Road
 Boreham Wood, Herts WD6 1JB

Once again it will come as no surprise to most, to find that this is in fact a re-boxing of the kit originally issued by PM of Turkey. There has been no revision to the original tooling and the only new items are the decal sheet, instructions and box.

Construction

With only twenty-two pieces, this could not be simpler. All of the assembly will take no more than a day, and the longest task before that will be the painting and drying of all the interior

component. The cockpit is very basic, just a floor, seat, rudder pedals and control column, none of which are very representative of anything shape wise. There is not even an instrument panel and I would have thought a bit of cockpit detailing would not go amiss, but once the fuselage halves are together, you will hardly see any of it anyway!!

Filler was required at the wing roots and tail "T" top and there was quite a pronounced step between the fuselage and nose cap (Pt No 9) and I don't remember it being like that when I made the original PM version? Undercarriage areas are simply blanked

off and the undercarriage legs etc are very basic. The canopy was nice and clear, but had been scratched, as it was loose with all the other parts in a bag within the box.

Colour Options

Not being a "real" operational aircraft of the Second World War, the "Huckebein" is given two totally spurious colour schemes within this kit. The colours quoted for them are Granite

Grey (69) and Greenish Grey (67) on the upper surface in a splinter pattern, with a mix of Light Green (55), White (301) and Grey (57) underneath. I however opted for the "authentic" colour approach and finished mine in RLM 82 & 83 on top with RLM 84 underneath. All the colours came from a specialist colour range and the equivalent to RLM 84 I used was nine parts RAF Sky to one part white.

Decals

As the colours I used were gloss, I encountered the usual problems with silvering of the decals carrier film. I decided to only use the wing strips and "Huckebein" motif from the kit decals, all the others came out of my spares box and none of the smaller stencils were applied (too tedious!). Now you may have noticed I said "wing stripes"; this little rendition of the Ta183 comes with a very novel application of the Reich Defence Bands.

Instead of going around the aft fuselage, Revell have opted to apply each colour of the band to a strip on the outer tip of each mainplane, very novel!!!

The decals themselves are very,

very matt and the carrier film is once again thick and very prominent. The size of the stencils in this scale mean that I simply could not risk even attempting to apply them, as they were just waiting to silver. Decal Rating six out of ten

Conclusion

I always liked the PM kit of the Ta183, so this issue under the Revell banner is welcome. I am unhappy about the price hike from the old PM edition, but that's progress (I always say that!). The kit itself is easy to build and will suit most modelling skills. For that reason it is another kit I can recommend to all, just don't expect to use those decals!

Recommendation

A true kit for all this one. The price may be a little much for some of the younger modellers, however it would be a good second or third kit for any beginner, as it does have some fit problems but just enough to teach without demoralising.

Recommended To All

My thanks to REVELL (GB) for the review sample.



CH-47D CHINOOK U.S ARMY

This is a re-issue of the Matchbox kit, under the Revell label. There are a few modifications to the tooling, but nothing which warrant much of a mention.

Construction

The kit has quite a few parts and the instruction sheet takes you through 25 diagrammatical

stages to complete the model.

The cockpit interior is detailed with instrument panel, seat and control columns. You should note that the instructions do not show the fitment of the instrument panel's (Pt No 50) decal, but there is one on the decal sheet. There was quite a bit of flash on the mouldings to clear up,

especially on top of the cockpit bulkhead (Pt No 66). Do not fit the instrument panel until stage 13, as it's position is critical with regard to the fitment of the clear nose (Pt No 68). Also note that you have to open up some holes in the nose insert (Pt No 4), otherwise the antenna (Pt No's 21) will not fit. The placement of the supports (15 & 16) on the which

assembly (stage 18) is not clear and its fitment to the fuselage (stage 20) is even less so. I would recommend that you make up the which body (41 & 42), then dry run the fit of it and the supports to the fuselage, then glue it all in place.

The fit of the tail gate assembly (stages 21 & 23) is very poor, I

found that once closed the fit was poor on most of the joints. If you display your model with this area open, you will probably have no trouble (note, I say "probably"!), however I did not want mine built in that fashion and therefore had to use quite a bit of filler to smooth the joints sufficiently.

The chaff dispensers (stage 22), well that's what I suspect they are, do not fit very well to the fuselage (stage 24 & 25). Their contours do not match those of the sponson, also Revell's instructions do not tell you if they are applicable to both options in the kit? The final bit of torture, I mean assembly, were the rotor heads and blades. The rotor head assemblies are a bit vague in fit and this can result in "sloppy" rotor blades. Ensure you jig each as it dries, otherwise is could all become lop-sided.

Colour Options

There are two options with this kit. The first is a CH-47 based at Berstrom AFB, Texas in August 1975. This machine wears a complex four colour camouflage, which is splashed with swirls of Dark Grey, this even includes the rotor blades!

The other four colours on this version are, NATO Green (Revell 46), Olive Green (45), Greenish Grey (67) and Stone Grey (40% No75 + 60% white).

The other option is far more sedate and yes, this is the

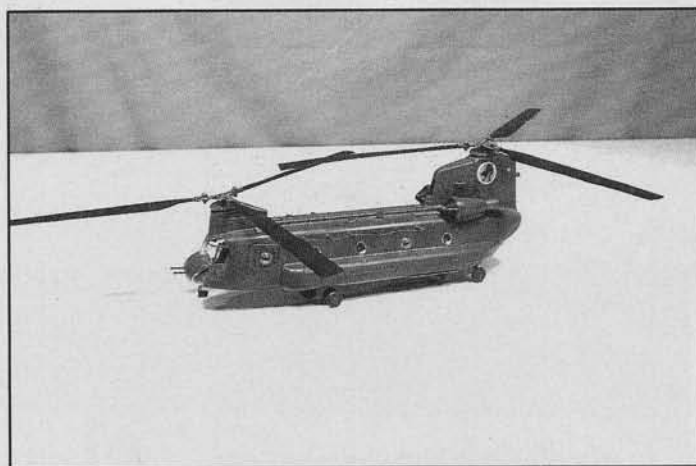
version I opted for! This is a CH-47 which operated with the 213th Assault Support Helicopter Comp, at Iruma AFB, Japan in 1982. This version is NATO Green (46) overall with black rotor blades. The nice thing about this is the emblem on the aft gearbox housing (See "Decals").

Decals

In this kit, the decals are up to Revell's usual standard. The carrier film and decal itself is matt, there is a lot of carrier film visible around each image and this all has to be removed before applying. The carrier film is not very thin and it can be a job getting the decal to conform to complex curves.

I could not get a lot of the smaller decals and stencils to settle on my example, with the consequence that I left them off! No matter how I tried, or how much decal solutions I used, most of the decals silvered and the decal film was so prominent as to leave unsightly steps at the edge of each image.

The nice thing about the decal options though is the unusual badge on the second version. This takes the form of a startled feline (I think?) superimposed on a light green disk. This coupled with the complex colour scheme of the other first option, was my reason for opting for latter variant (chicken!, I know). Decal



Rating four out of ten

Conclusion

When this kit was out under the old Matchbox label, it was a good kit. It is not all that old even today, being tooled in the late 1980's and I was surprised to find quite so much flash on it.

The level of detail is not bad, but the fit leaves a little to be desired in places. The instructions can be a bit vague, the lower fuselage fences (Pt No 10) are fitted at 90 degree's to it, not flat as it looks on the instructions.

Recommendations

The complex nature of the kit at times, along with the fit problems make this a kit

unsuited to a novice. To be truthful I suspect that most modellers could make this kit, but only if you had some other

decals for it. The examples in the kit are almost unusable and will spoil your finished model.

Recommended to anyone with their own decals!

Thanks to REVELL (GB) for the review sample.

TECHNICAL DATA

Manufacturer: Revell

Scale: 1/72nd

Price: £ 8.95

Type: Injection Moulded Plastic

Kit Number: 04413

Plastic Parts: 129

Clear Parts: 11

Decal Options: 2,

Bergstrom AFB, Texas 1975
213th Assault Support
Helicopter Comp. Iruma AFB,
Japan 1982

Supplier: Revell (GB) Ltd
Foster House, Maxwell Road
Boreham Wood. Herts WD6 1JB

TECHNICAL DATA

Manufacturer: Revell

Scale: 1/48th

Price: £ 11.95

Type: Injection Moulded Plastic

Kit Number: 04429

Plastic Parts: 109

Clear Parts: 9

Decal Options: 2,

HSL-35 "The Magician", NAS
Fallon 1988 HC-7, NAS Ream
Field, Calif 1971

Supplier: Revell (GB) Ltd
Foster House, Maxwell Road
Boreham Wood. Herts WD6 1JB

This is a re-boxing under the Revell banner of the Matchbox kit. No additions have been made to the kit and no modifications, other than the removal of "England" from the "Made in England" legend on the sprues, have been made!

CONSTRUCTION

With over a hundred pieces in the kit, plus a lot of clear components, this is not a simple "afternoon" kit. Construction is achieved in nineteen stage, all of which are well illustrated in the

instructions. The cockpit is well detailed and there are three figures supplied, although I did not use them in my example. The fit of the nose radome (Pt No 65) is a little vague as well as not being very good. This situation is worsened by the fact that the undercarriage sponson on each side of the fuselage does not fit well either, so you have some very awkward seams to fill. The windshield (87) does not fit flush on to the nose area and the nose itself (10) does not fit well either!

As I did not fancy masking off the interior to allow me to spray my model, I opted to close all the sliding doors. You should note that some of the side windows are simple plug-in fits, part numbers 89, 85, 86, 91, 92, 93 & 94 are all like this, so be very careful how you fit them. I would recommend a dry run to check their fit, then once all is well put them back in and then add a little liquid cement to the edge with a thin paint brush. Capillary action should take the glue all around the edge of the clear panel, without the risk of getting it all



over the place. I left off the main and tail rotors, plus all the weapons and undercarriage until after the model was sprayed and then painted them up and added them after everything was dry.

Colour Options

There are two options with this kit. The first is a very colourful example operated by HSL-35

"The Magician" at NAS Fallon in 1988. This aircraft is Dark Grey (378) overall with black panels on the nose and upper engine decking, plus red and yellow stripes on the tailplanes and a yellow band on the rear fuselage.

The other option, and the one I opted for, is an example operated at NAS Ream Field in 1971. This aircraft is simply

Grey (374) overall with light grey rotor blades.

Decals

Now you all know how I feel about Revell's usual style of decal. Due to the number and complex nature of some of them on this model, I was a little reluctant to start. However as soon as I inspected the decal sheet I could not believe my eyes, they were gloss and the carrier film was confined to the parameter of each individual letter or number, oh joy!!!

Suffice to say that all the decals went on with little need for trimming, they were settled on with a little of AeroMaster's AERO Set and AERO Sol solutions and they all went on beautifully. Decal Rating eight out of ten

Conclusion

This always was a good kit offering from Matchbox and it

has not deteriorated at all. The detail is good and those decals really made my day. On the negative side the undercarriage and radome fit problems and the complex nature of the resulting filling, make it a kit for those with a little previous experience.

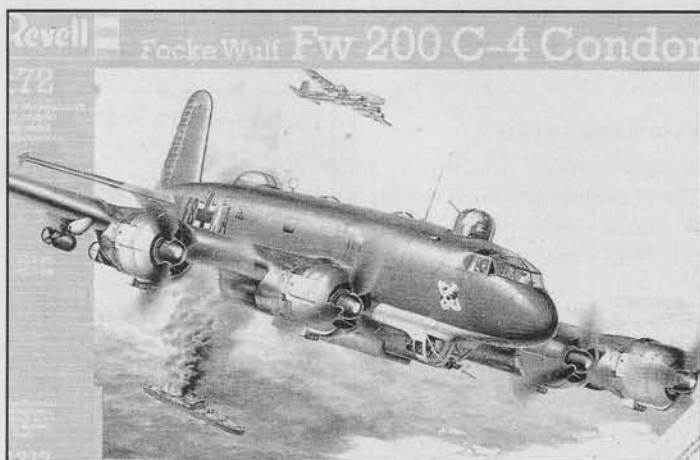
Recommendation

As I have said above, this is a sound kit, although the fit problems can detract a little, the overall package is good. The inclusion of useable decals is a real joy to me, as I have been moaning about their quality for long enough, may all your future kits have these decals Revell!

Recommended to all, as long as you have a little experience tucked under your belt.

Thanks to REVELL (GB) for the review sample.

Adrian Darby



TECHNICAL DATA

Manufacturer: Revell

Scale: 1/48th

Price: £ 11.95

Type: Injection Moulded Plastic

Kit Number: 04312

Plastic Parts: 120

Clear Parts: 14

Decal Options: 2,

Stab/KG 40, Afrika 1943

9/KG 40, Mediterranean 1944

Supplier: Revell (GB) Ltd
Foster House, Maxwell Road
Boreham Wood, Herts WD6 1JB

When Revell issued the civil version of the Fw200 Condor last year, many people assumed that the toolings had been modified from the military version. An inspection of the kit proved this to be wrong and many people hoped that the newly announced Fw200C-4 would be a new tooling also. Well before you all get excited I can tell you that this is another re-issue of the old tooling. Dating back to the 1960's, this is indeed an old kit, although not bad in outline etc, it does show its age.

Construction

First task with this kit is to knock down all those amazing rivet head with some Wet'n'Dry! Construction is achieved via twenty-eight stages, all of which are well illustrated in the instructions. You should note that no instrument panel decal is supplied with this kit, but one is given on the instruction sheet, unfortunately this has been left to the final stage, so it will be too late!!

The fit of the pieces is not bad, but there is little detail and quite a lot of flash evident, which I would expect on a 30 year old kit. The cockpit canopy does not fit well, overhanging the fuselage hole quite noticeably on one side. All the ailerons, rudder and flaps are moveable, a feature of these older kits and one I found detracted a little on the finished model. The bomb bay doors, if fitted shut, are very poor and I had to fill all the joints with 10 thou plastic card just to get it all to meet!

Colour Options

There are two with this kit, both WWII era and both Luftwaffe, of course. The first is F8+AA of Stab./KG 40 in Africa in 1943 and the other is F8+MT of 9./KG40 operating in the Mediterranean in 1944. Both of the aircraft's colour keys include not only Revell paint numbers, but also the RLM number's; well done Revell! Both aircraft are listed as RLM 71 & 72 in a splinter pattern on top with RLM 65 underneath. The tip of the under surface of each wing is painted yellow (RLM 04).

I however opted for the more usual maritime colour combination of RLM 72 & 73 on top with RLM 65 underneath. The propellers and spinner were RLM 70 and all interior areas were RLM 02.

Decals

These are unfortunately Revell's matt style and they have prominent and thick carrier film. The crosses, codes and unit emblem were no real

problem to cut out and apply, but the stencils and walkway boundaries were just too much to bear, so I did not apply them ("Coward" I here you cry, oh yes!!).

The decals I did use were settled onto the model with the aid of my ever faithful bottles of AERO Set and AERO Sol from AeroMaster. This did help a little, although even after copious amount of the solvent, some still insisted on silvering!!!!!!
Decal Rating five out of ten
Conclusion

This is an old kit which shows its age, but it is the only Fw200 in 1/72nd around, so it is the only game in town. The overall shape of the model is

satisfactory, but all the rivets just have to come off. The moving control etc are a bit of a woolly mammoth to us today, but they were the bee's knee's in the 1960's!

If you can hack poor fit, little detail, too many rivets, thick canopies and bombs which look like Flash Gordons rocket ship, then you will love this kit. I personally can't stomach the £11.95 price tag for this antique, so I say lets petition Revell to re-tool a nice shiny new Fw200, what do you say, NO!! , well O.K.

Recommendations

If you know what you are letting yourself in for with this kit, you are obviously able to

cope with all the problems, if not then don't be taken in with the nice new shiny box, inside lurks a thirty year old kit (although it looks better than I do at thirty!!!)

Recommended to the

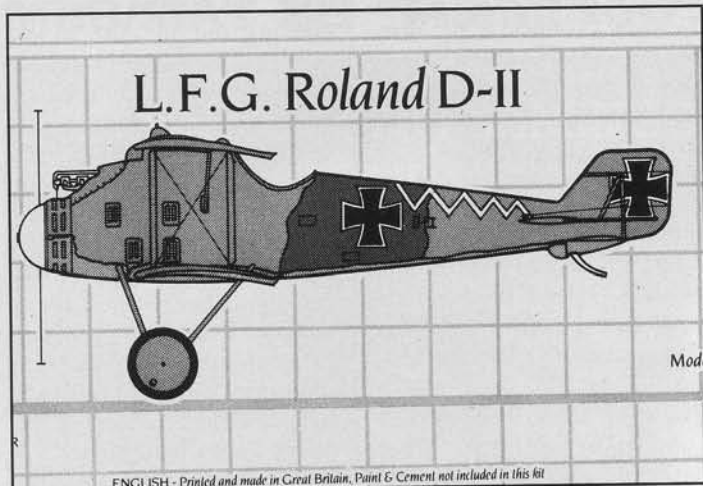
dedicated amongst you, who can live with its faults and price.

Thanks to REVELL (GB) for the review sample.

Richard.A.Franks



L.F.G. ROLAND D-II



TECHNICAL DATA

Scale : 1/72nd
Price : £ 9.99
Type : Limited Run Injection Moulded Plastic & White Metal
Kit Number : 1025
Plastic Parts : 14
White Metal : 6
Decal Options : 1,
Manufacturer : Pegasus, Lancaster House. PO Box 50, Whitstable, Kent CT5 2UX
Tel : (01277) 277569

Back with the WWI era machines which have made Pegasus its name, Chris Gannon has now released this new kit of the L.F.G. Roland D-II. The kit is made in his usual soft grey plastic, with white metal detail parts and one

decal option. Construction

As with any of the Pegasus range, the kit is not aimed at the beginner. However, this kit was designed to be buildable by those who had never made such a limited run kit before.

Most of your initial time is spent removing the parts from the sprues and cleaning everything up. Limited run means large sprues and therefore big attachment points for each piece. The plastic used is relatively soft, so don't go hacking about or you will ruin it all.

The cockpit floor is detailed with a bulkhead and instrument panel, seat and

control column. The beautiful little Mercedes engine is cast in white metal and it is fitted to the raised portion at the front of the cockpit floor. Check that it aligns with the hole in the forward fuselage before you cement it in position. With this assembly complete, its placed in one fuselage half and then the rest of the assembly is completed around it.

With the fuselage and tail completed you can move on to the wings. If you make WWI aircraft you will have a personal way of rigging such planes, so I will not bore you with my methods. All of the struts you need to make for both the wings and undercarriage are supplied in the kit and true scale drawings of each are included on the base of the little instruction sheet.

You will have little trouble with the remaining detail parts and so way along this assembly sequence you will have decided to stop for a while and contemplate the colour scheme.

Colour Options

Notes on the colour scheme are included on the edge of the

box. There is only one decal option with this kit and that depicts a Pfalz built version which operated on the Eastern Front in 1917. The aircraft is finished in spray applied alternate bands of Dark Green and Red/Brown on the upper surfaces with Pale Blue underneath. These colours can, I believe, be found in certain specialist colour ranges, but I opted to use some old Humbrol Authentic's I happened to have.

Decals

The decals are up to Pegasus' usual standard. They are well printed and quite thin. Mine were applied directly onto the model after a coat of Johnsons Klear. I did not use any decal solvent, but would consider (with the value of hindsight) that it would have helped me with the crosses on the tail, which I had a little trouble settling down. Decal Rating seven out of ten

Conclusion

Well, Pegasus intended this to be an easier kit to make and it certainly is. I would say that it is one of the best kits they have made in quite a while, so simple to make. Chris is



certainly to be congratulated for trying to make limited run kits more accessible to people.

Recommendation

As I said this is a nice, basically easy kit to make. If you have never had a go at this type of kit before and would like to, drop Pegasus a ring and buy one. If however you are well versed with the product and like the subject matter, still go out and buy one, you will not be disappointed.

Highly Recommended

My thanks to Chris Gannon of PEGASUS for the review sample

SUKHOI Su-27 "FLANKER B"



TECHNICAL DATA

Manufacturer :
Academy-Minicaft
Scale : 1/48th
Price : £ 26.00
Type : Injection Moulded Plastic
Kit Number : 2131
Plastic Parts : 154
White Metal : 12
Etched Steel : 13
Other : 3 (Rubber Tyres)
Supplier : Toyway, PO Box 55
Unit 20, Jubilee Trade Centre
Jubilee Road, Letchworth,
Herts. SG6 1SG

This is an entirely new kit, tooled, I suspect in Korea and showing every sign of being as good if not better than any of their previous kits. The kit features recessed panel lines and PVC tyres for the nose and main wheels.

Construction

First thing to do is decide if you intend to fit the weapons pylons to your model and if you do, don't forget to open up the holes in the wing under surface in Stage 1. The cockpit features a simple three piece rendition of the seat and the firing handle is way too big. Hopefully an after market company will soon come to your aid here. There is no decal for the instrument panel, but it does include nice raised detail anyway, so a little dry-brushing will highlight it all. The three piece H.U.D can be a little tricky, especially as all of them are in clear plastic.

Leave off the antenna and aerals (A47 and A11) until after all the painting done. The photo-etched steel screens within each intake truck fit perfectly and are very effective.

The only real problem area is the assembly of the forward intake trunks (Stage 6) to the fuselage under surface (Stage 7). Now I come to a problem, but this is as bad as the kit gets and all you get here is a little step, which I personally can live with! The leading edge slats can be a tedious fit, but remember not to sand/cut too much of them whilst you prepare them and your life will be easy. Don't fit the "Odd Rod" antenna (A48) until after all the painting is completed.

The nose wheel and leg is a complex fourteen piece assembly and you will find that the PVC tyre is too wide to properly fit within the FOD guard (A20 & 21). All I can suggest here is to do what I did, lots of glue and a peg to press it all together! The use of etched within the nose leg bay is unnecessary, as the detail is already there. The use of it on the undercarriage doors is quite a good idea, as these piecers would have been just too thick if done in plastic.

There is a formidable array of weapons for your Su-27, with sixteen different guided weapons to hang under the pylons, you have to choose, as three types (six missiles) or options. The rudder assemblies need to be made up and secured to the fuselage before you even consider adding the

tailerons. I found it easy to approach it in this manner, as it allows you to feed the actuator boss ((A37/38) into the housing on the rear of the rudder quite easily. I did not make my example with the air brake deployed, preferring to secure it in the stowed position as I think it spoils the line of the aircraft. I left of the blade aerial (A12) until after painting and also masked of the cockpit without the rear canopy section fitted (E3). This was sprayed up separately, so I could finish it all off and then add the etched mirrors to it (7) before I finally secured it in place.

Colour Options

Only one colour option is offered in this kit and that is for "08" and aircraft operated by the Lipetsk Air Force Training Centre. It wears a standard three tone colour scheme and has a superb shark motif running down the entire port intake trunk and up on the fin/rudder assembly. Colours are picked out in the instructions by Federal Standard 595 colour codes, although some specialist paint manufacturers have already issued paint specifically for the Su-27. I utilised a set of these specialist paints, but opted for Revells matt white (4) for the nose cone and Gun Metal (Humbrol 56) for the

unpainted areas over the engines and the exhausts. The red undercarriage doors were done in Revell's Fiery Red (No 31) and all other detail paints were also from the Revell range.

Decals

The kit includes an excellent sheet of very thin glossy decals produced by Superscale. They adhere to the model like a limpet and I had little trouble with them except, be careful not to pull on them as they do snap if you are not careful. The shark motif on the port side is broken down into three parts and is easy to apply. All of the other markings and stencils went on very well and the only disappointment were the "08" numbers which were both out of register, a shame that as they are very noticeable on the completed model. Decal Rating nine out of ten

Conclusion

This is a superb kit, well worth the asking price, considering its size and quality. The dimensions of an Su-27 will amaze you in this scale, its big! I have made this new kit and I think I will be hard pressed to find many more as good during the rest of the year. If I do a top-ten for 1995, I suspect that this one will be very, very close to the top. I enjoyed making the model, liked painting it, had no problems with the decals and loved the finished product, and I can assure you there are not many review kits like that per year!!

Recommendations

Considering its size and number of parts, this is still an easy kit to make. There was little need for filler and I found

all assembly easy to achieve without modification etc. The end product is very impressive and all I suspect that will stop you from having one is whether the topic is of interest to you.

The ease of construction therefore makes this a model I can recommend to anyone, just

remember how big it is once made!

VERY HIGHLY
RECOMMENDED

My thanks to TOYWAY's of Letchworth for supplying the review sample.
Richard.A.Franks



MBB/SIAT 223 "FLAMINGO"



TECHNICAL DATA

Manufacturer: Revell
Scale: 1/48th
Price: £ 4.75
Type: Injection Moulded Plastic
Kit Number: 04227
Plastic Parts: 23
Clear Parts: 1
Decal Options: 2, 1x Spanish & 1x Swiss (HB-EVF)
Supplier: Revell (GB) Ltd
Foster House, Maxwell Road
Boreham Wood, Herts WD6 1JB

Like many of the "new" products being released by Revell under their selection

of brand names, this is in fact a re-issue of an existing companies product.

The kit, if you did not already know, is made by PM of Turkey and the only revisions to it are a new decal sheet, plus the re-boxing.

Construction

With only twenty-three white and one clear part, this is a very simple kit to make. The cockpit area is detailed with cockpit floor, complete with moulded seats, and the control columns. A decal is provided for the instrument panel, but there are no rudder pedals etc and the cockpit area is in need

of bulkheads fore and aft to stop that "look-through" effect. Nose weight of 15g is required to ensure the model sits on its tricycle undercarriage, but there is sufficient space up front to take this.

The only real moulding flaws are the very evident ejector pin marks in various places and sink marks. The worst of these being on the wing tips (Pt No's 15 & 16). There is flash evident on some parts and the overall amount of detail is very limited, but the model is sound and makes up very easily indeed. There is little need for any filler, except on those sink marks and the canopy is nice and clear, although it is not separately packaged to prevent it getting scratched.

Colour Options

There are two colour schemes with this kit, one Spanish and the other Swiss. The Spanish A.F example is in a typical "desert" style of camouflage, consisting of sand with green blotches on the top and a greenish grey under surface.

The Swiss example comes in a red and white scheme, very

reminiscent of RAF S.A Bulldogs! I opted for the Spanish example and used Revell's own colours throughout. The top was Ochre (88) overall with blotches of Bronze Green (65) and the under surface was a mix of Light Green (55), White (301) and Stone Grey (75).

Decals

Now this kit was a bit of a revelation to me, as it is the first I have made exclusively using Revell's own paints. "How does that effect the decals?" you may well ask, well to my amazement it meant that they went on with next to no problems at all.

The matt finish of Revell's paint seems to be suited to the decals supplied in their kit and with a liberal application of Aero Sol decal solution and the removal of the larger areas of carrier film, I was able to effect quite a satisfactory conclusion to my decal application; now that makes a change!

The decals are still totally matt, but the carrier film seemed thinner on my example and less obtrusive, however I know how they react on gloss

finishes, so they can still improve. Decal Rating six out of ten

Conclusion

This is a sound and easy kit to make and would make an ideal kit for a beginner in the bigger scale, or as a starting point for anyone returning to the hobby after quite a while. The low price of the kit, in comparison to the other PM toolings offered by Revell, reflect the limited interest a model of the SIAT/MBB 223 has, but the inclusion of the Spanish and Swiss decals should

make it a little more appealing generally.

Recommendations

This is a kit I can truthfully recommend to everyone. It is relatively inexpensive and well produced. The simplicity will help the beginner, encourage the intermediate and inspire the expert to greater things. Suitable for all skill levels.

My thanks to REVELL (GB) for the review sample.

Richard.A.Franks



AIRFIX/HELLER TORNADO REVISION

In my review of the Heller IDS Tornado (See Vol 1 Iss 6, Page 287) I stated that I was not at all happy with the fit of the intake trunks (Parts 33 to 36).

I was contacted by Trevor Snowdon at AIRFIX, who was a little concerned about my comments. The usual "did it or didn't it fit" discussion ensued and the basic gist of the conversation was that Trevor had made over 10 of the AIRFIX versions and had encountered little trouble. The old "must have been a duff kit" argument came out of the closet and I informed Trevor that I was quite willing to put hand on heart and admit I was wrong, if he was willing to put his money where his mouth was and supply another kit as comparison!

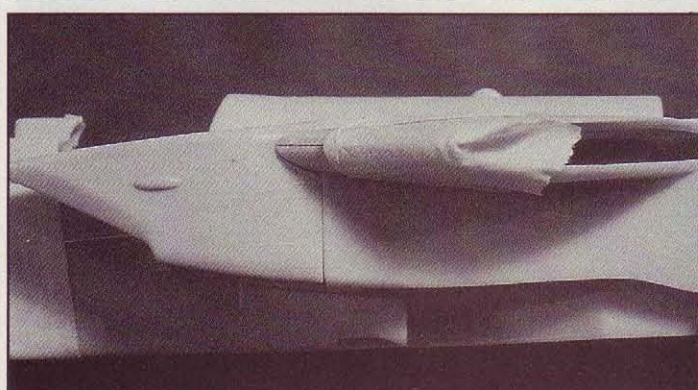
The kit duly arrived and I set about various checks of those dreaded intake trunks (Stage 9 & 10)

Well..... here I am hand on heart admitting I was wrong!!!

The photographs with this little piece should show you that the intakes on the AIRFIX version, although not a perfect fit, are no where near as bad as those I had on the HELLER kit.

I should like to point out that there is still a point of contention I would like to raise though. If you look at the instructions throughout the kit, and especially at the assembly of the intakes, at no point do they clearly show, or tell the modeller that the top of each trunk is meant to be proud of the upper fuselage decking. The boundary layer vent on the top of the trunks are visible in most shots of the real aircraft and I think the step is hinted at in the painting guide on the instructions, but it is not clear during the assembly and in stage 18 they are clearly shown completely flush!.

For the first time I have come across a genuine case of "duff review sample" and I would therefore like to inform all readers that the kit does fit adequately in these areas and it has therefore elevated the kit from one I cannot recommend

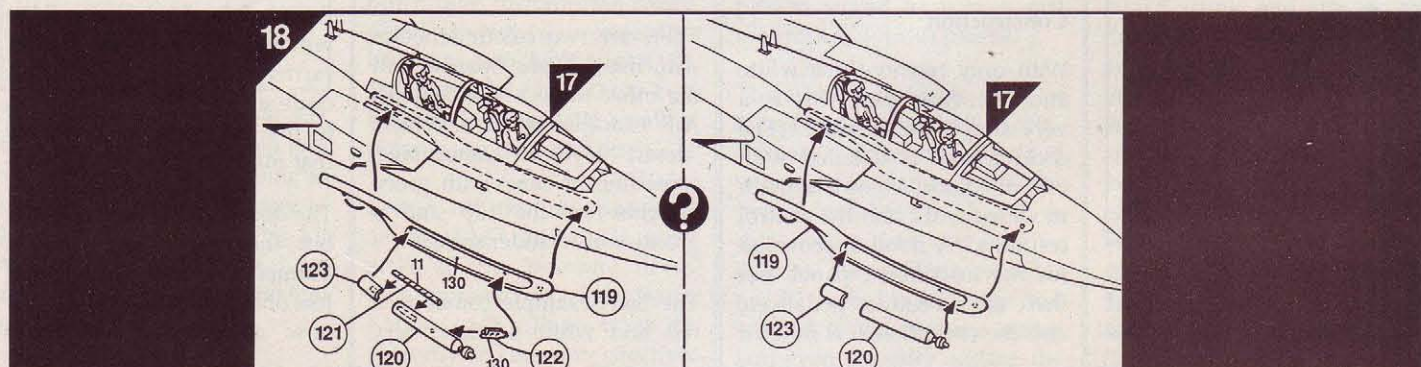


(although through typographical error the review said I did!), to one I would recommend to most modeller who have sufficient experience under their belt to deal with all the remaining fit difficulties.

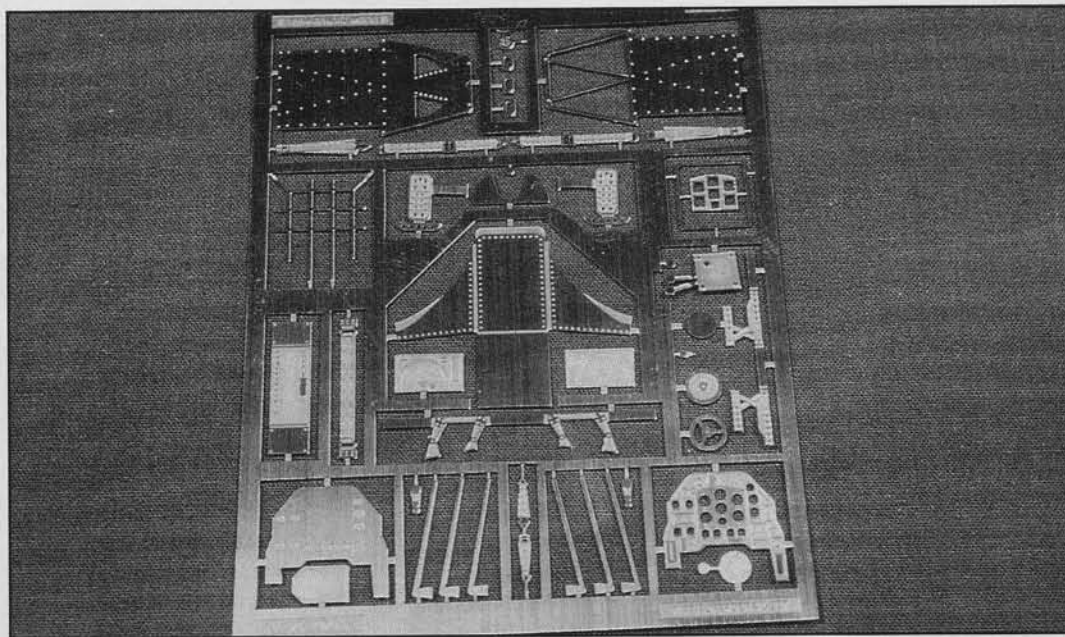
My apologies to AIRFIX and

HELLER and my thanks to Trevor Snowdon for having the nerve to stick by the product and for actually taking time to read my review in the first place. Its nice to know some manufacturers read them!!

Richard.A.Franks



Accessories



JUNKERS Ju-87 STUKA DETAIL SETS

The Hasegawa 1/48th Junkers Ju-87B-2 Stuka, although a little expensive, seems to have been well received by the modelling community. It was not going to be long before the after market manufacturers got hold of it and produced some "goodies" for it. This is the case with these review products from REHEAT MODELS, who are offering interior & exterior upgrade sets.

As I have already stated there are two sets from Reheat, the first is the interior set and it is number RH098. This is an

etched brass set on a fret measuring 65mm x 82mm. The fret contains forty-two pieces and these are; Pilots seat, Gunners seat, armour plate (roll frame style), armour plate (solid style), instrument panel and backing (for use in conjunction with "Reheat System"), rudder pedals, Pilots harness, trim wheels (two styles), various switches, control levers, radio transmitter & receiver fronts, cockpit canopy handles, MG15 sight, Gunners straps and control surface actuator rods.

All of the components are up to Reheats usual excellent standards and although the Hasegawa kit is well detailed from the start, these additional pieces will improve the interior immeasurably.

The next set, number RH099, is for the exterior of the Hasegawa kit. This time it uses both etched and resin pieces. The etched fret is 64mm x 81mm and it contains twenty-nine pieces. On top of that there is a small block of grey

resin with two beautifully cast gun breeches for the wing machine guns. The etched components are; port & starboard gun bay, gun bay access ports, lower fuselage antenna, gun bay rib detail, gun bay access panels, dive brakes (made up of 4 parts per side), aileron mass balance, trailing antenna, main antenna, D.F loop (late variant) and gunners side armour.

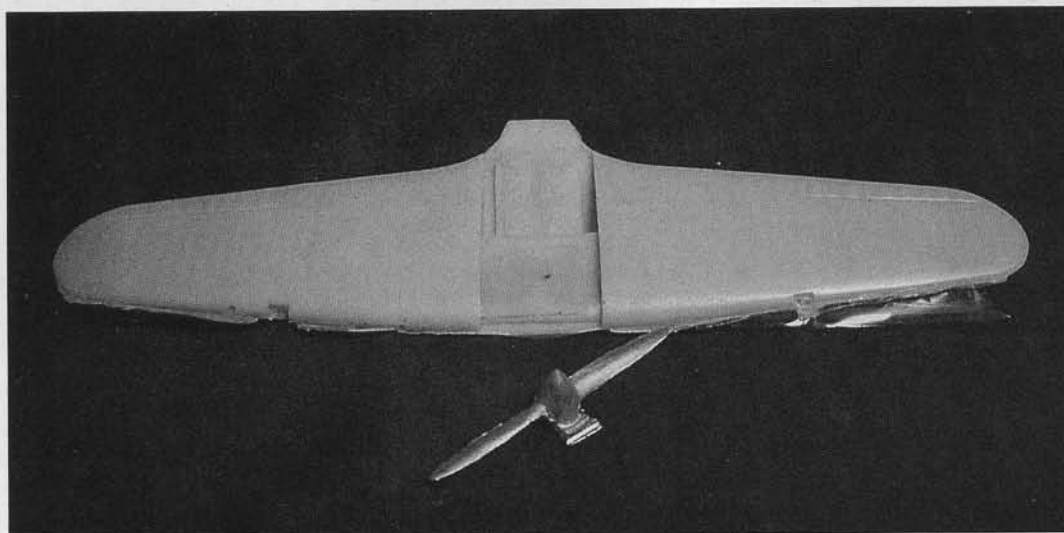
Once again all of these pieces are excellent, the resin guns are very nice and the instructions give good narrative descriptions on how to fit them.

Both of these sets are well worth investing in, if you have and intend to build, a copy of the Hasegawa kit (either B-2 or Tropical versions).

My thanks to REHEAT MODELS for these review samples. All of their products can be purchased direct from them at;

1A, OAK DRIVE,
NORTH BRADLEY,
TROWBRIDGE
WILTSHIRE.
BA14 0SW
credit card orders accepted)

Richard.A.Franks



EARLY HURRICANE FROM MAGNA

I have always liked the Hurricane, I am not a subscriber to the "Spitfire won the war" club, so I am always interested to hear of new bits and pieces for this aircraft type. It was only recently that I saw that MAGNA MODELS intended to issue a 1/72nd scale conversion for the MkI hurricane, and that it was to be based on the AIRFIX kit.

This has now arrived at the editorial office and as I suspected it consists of a new resin "fabric" wing and a white metal Watts two-bladed propeller. The fabric effect on the new resin wing is commendably good and the

conversion should be very easy to achieve. My only problem with the wings were the profusion of tiny "pin-prick" marks left by air bubbles which ran along the entire length of the trailing edge of the wing on both sides. This is not a great problem, but it will require a coat a primer and a gentle rub-down to ensure they do not mar your final colour scheme.

The Watts prop however is a matter for concern to me, as I am uncertain about its profile and dimensions. The prop scales out to 11 ft, tip to tip, but I am sure that the profile of

the blade is too thin, when viewed from the front. The spinner looks too small as well, but without a detailed dimensional survey I cannot be certain, so I will let it rest.

The A4 sized instruction sheet tells you how to convert your Airfix kit, along with notes on the canopy framing and removal of ventral strake. The unique "kidney" exhaust stakes of the early MkI are not included in this conversion, neither is the venturi for the port fuselage side, just below the cockpit. It is a real shame about the exhaust stakes,

because although there are drawings of them on the instructions they are quite complex little things to faithfully reproduce and I would have therefore preferred to have seen them included with this conversion.

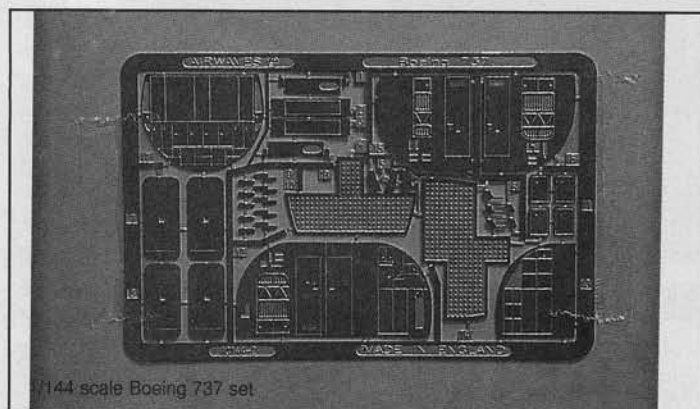
Six colour schemes are noted on the back of the instructions and I would direct you to AeroMaster sheet number 72-024, which includes a very nice little Belgium A.F example.

Overall a good and sound little conversion. It is very simple to convert the Hurricane once you have the new wing, and

Magna have now done this for you, so what are you waiting for? At £7.75 this conversion costs twice as much as the AIRFIX kit, but that's progress!

My thanks to Magna Models for the review sample. You can purchase this conversion direct from them at;

4, Brian Close
Sandford,
Wareham,
Dorset.
BH20 7BJ
Tel 01929 553518.



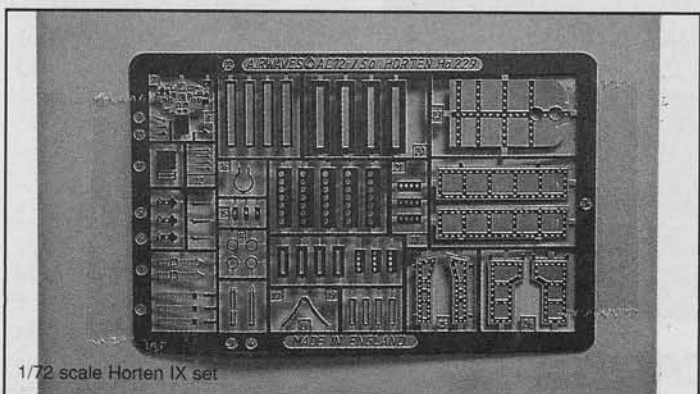
LATEST FROM AIRWAVES

The Airwaves range produced by E.D Models in the midlands is well established for its range of etched brass detail sets and now and again we see samples of the most recent sets to be released. This was the case recently when we received four new sets for review within the magazine. Three of the sets are in 1/72nd scale, whilst the fourth is in 1/144th scale.

Lets start with the 1/144th scale offering. Numbered AC4402, it is for the Boeing 737. It is generic in approach, being designed for no particular kit, but being adaptable to all.

The 7cm x 4 cm fret contain thirty-two pieces and these are;

1. Inner and outer port u/c door
2. Inner and outer starboard u/c door
3. VHF antenna (3)
4. Pitot tube (5)
5. Passenger doors (2)
6. Service doors (2)
7. Door handle (outer) - (2)
8. Door handle (inner) - (3)
9. Emergency chute (4)
10. Forward bulkhead
11. Forward galley
12. Forward floor
13. Rear port bulkhead
14. Rear starboard bulkhead
15. Rear bulkhead
16. Rear floor.



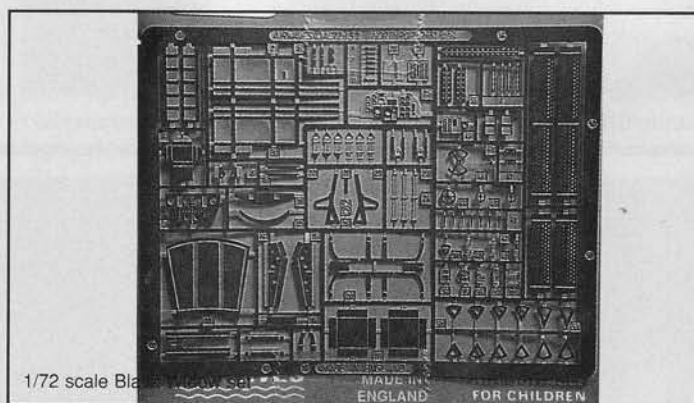
Now I will move on to the 1/72nd scale sets. First is set number AC72150 and it is for the Horton Ho-229. Really it would be the Horten IX or the Gotha Go-229, but that's just me being picky! Designed for the lovely new Revell kit the 4 cm x 7cm fret contains sixty-seven pieces. These are;

1. Seat Belts (lap and back)
2. Rudder Pedals
3. Reidel starter pull-rings for the Jumo 004 engines
4. Instrument panel and various levers
5. Canopy framing
6. Throttle box
7. Machine-gun fronts
8. Interior detail for all the undercarriage doors
9. Drag rudders

place of an "odd" component.

Next is set number AC72152 and this is for the P-61 Black Widow. The set is designed for the DRAGON kit, although the instructions say "Italeri", do you know something we don't E.D?? The fret measures 9cm x 7cm and contains one hundred and one pieces, these include;

1. Seat belt harness (pilot)
2. Seat armrests (pilot)
3. New frame for crew seats (x2)
4. Seat harnesses for crews seats (x2)
5. Instrument panel and levers
6. Rudder pedals
7. Pilots right hand sidewall detail
8. Pilots left sidewall detail
9. Canopy hinges (front and rear)



This is a good basic set which will add quite a lot to an already good little kit. I would say that a few things struck me about this fret, namely why are there three rudder pedals? A lapse of memory maybe, I think not as there are also three back straps and three machine gun fronts? When a fret such as this is designed, I would prefer to see solid brass in

10. Rear compartment right sidewall detail
11. Rear compartment left sidewall detail
12. Rear compartment boarding ladder
13. Wing spoilers (x4)

This is a good set, well produced and with enough detail to please most. The rear compartment access ladder is a

good idea and the wing spoilers will look nice. The set still has those "oddities" though, namely three shoulder straps? If you must give some spares at least give us a spare set.

The final set is AC72153 and it is for the Arado Ar240. Designed for that excellent Revell kit, the fret measures 7cm x 4cm and contains seventy pieces. The selection

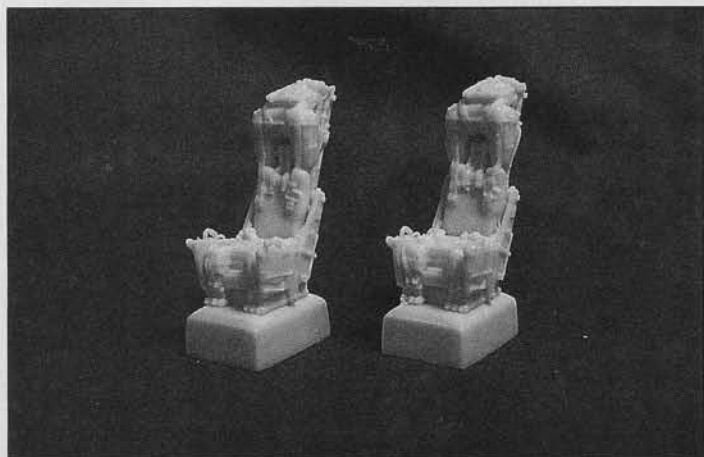
- of areas covered goes like this;
1. Seat belt harnesses (x2)
 2. Instrument panel
 3. Rudder pedals
 4. Side and cockpit floor detail.
 5. Undercarriage torque links
 6. Radiator screens (x4)
 7. Access hatch
 8. Canopy hinge and latches
 9. Boarding ladder.

Overall another nice little set for an already good kit. The pieces are well produced and

nice presented, once again however you get that odd "spare" seat belt cropping up! To sum up, these are good, sound little sets. The Airwaves presentation and creation has been like this since etched brass came in vogue a few years back now. However with the like of EDUARD and REHEAT in the same market place I am a little disappointed to see that AIRWAVES has not grown or developed in those

passing years. All of these sets are good, but they can so easily be "very good". No matter what I have said do not be put off, as all of these sets will give you most of the pieces you may so desire and at an affordable price. Airwaves brass is always easy to deal with and for this reason I can recommend these sets to all.

My thanks to ED Models for sending the review samples



PHANTOM SEATS FROM PARAGON

Following on from his initial release of the new Paragon label at the Southern Expo (See Vol 1 No 6, pages 314-317), Neil Birkill has now produced a lovely little set of two Martin

Baker Mk 7 ejector seats for your new Revell F4 kit.

Cast in polyurethane resin, the detail is quite amazing and each seat even has the belts

posed in a different manner, as Neil said it would be too obvious in this scale if they were both the same; the man a perfectionist! When I initially looked at the seats I thought they had a lot of flash on them, but a close inspection revealed that this was all the straps and leg restrainers cast so amazingly thin, that it will only be after a bit of detailed painting that all this detail just comes shining through. Each seat is moulded onto a solid block, so they are easy to manipulate whilst you paint them. There is little to no preparation to be done with each of them and only the merest number of mould lines might need to be removed, and I do mean "might".

If you love the Phantom, and I know there are quite a few of

you nuts around!, then you must have a set of these seats. They are so good, that even if you don't have a model to put them in you could still paint them up, leave them on the blocks and use them as desk ornaments!!!

The present price for these little works of art is £10.99 for a pack of two. You can obtain them, and all other Paragon items, direct from Neil at; Unit 10E,

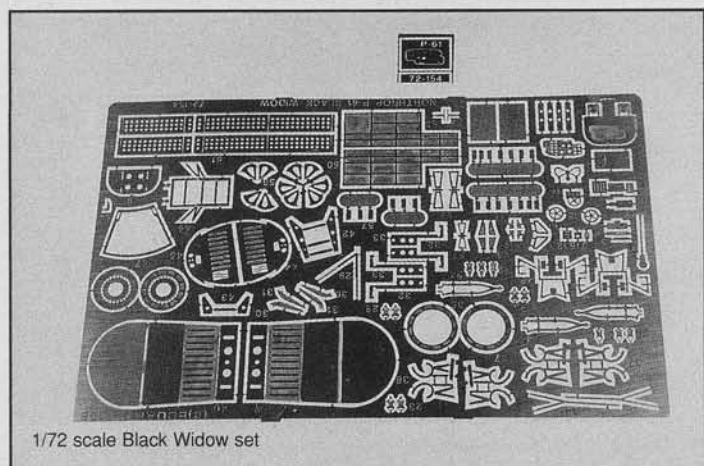
Folgate Road,

North Walsham,
Norfolk.

NR28 0AJ

Fax/Tel 01692 407577

My thanks to Neil for the review samples, I can only wonder at what he will come up with next!



GEKKO & BLACK WIDOW DETAIL FROM EDUARD.

Well here I am again, back once more with yet more new sets from EDUARD. These sets however are for two topics which I am most definitely interested in. Both of these sets, which I had passed to me by Stan Overall of FOUR PLUS

(UK), are in 1/72nd scale, one is for the P-61, whilst the other is for the J1N "Gekko".

First of the two is the P-61 set numbered 72-154 and designed for the DRAGON kit. It consists of an etched fret,

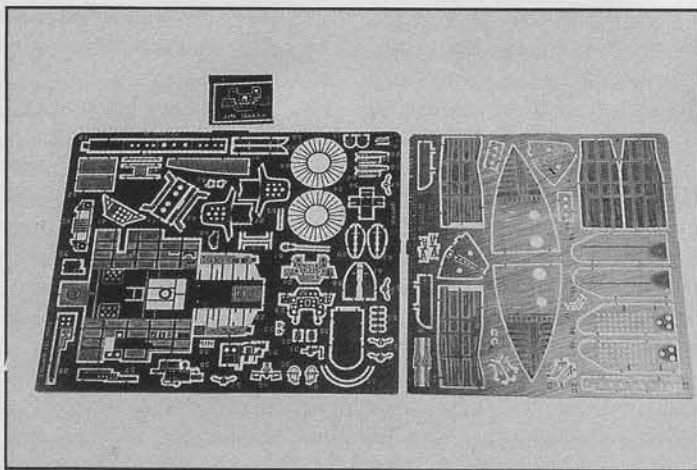
115mm x 73mm in size and an acetate backing film for the instrument panel. When I reviewed the DRAGON kit (See Vol 1 Iss) I had my doubts about the style of seats in it and this new set backs up my thoughts. The kit seats have the moulded arms removed and more realistic, tubular examples fitted. Full harness detail is also included along with that instrument panel and acetate backing film. There are some supports bars for the nose radar scanner and there are a few new bits and pieces for each side wall in the cockpit. A rather nice set of detailed radiator grills are included and full side and interior detail is also included for the rear cockpit area; an area not properly dealt with in the kit. An access hatch for this rear area is also included and this should look very nice. The detail is finished off with

undercarriage strut and wheel well detail, plus a full set of extended airbrakes.

This is one hell of a set and as I am about to make up a P-61B (if I ever get the time!) I will certainly be fitting all of this to my example. If you like the Black Widow, who doesn't?, then this set is a real "must" for you.

Now we move onto the next set, number 72-155, which is for an aircraft I really love, the Nakajima J1N Gekko (Irving). This new set is designed for the recently issued series of J1N's from FUJIMI and it covers nearly all the bad areas of the kit, bar the fit problems.

The set consists of two frets; one is 74mm x 89mm, whilst the other is 69mm x 73mm, the package is finished off with the usual acetate instrument panel backing film.



You get a new pilot's seat plus harness, that instrument panel complete with the acetate detail, some canopy handles and then an entirely new etched cockpit interior. This is the best bit of the set and is similar in approach to their A6M2-N Rufe set. You get the floor and sides etched as one

and you simply fold it all up into position and then add detail parts here and there. The end result is a superb interior in your expensive kit, where there was not one before!! There are two nice push rod/wiring harness rings for the engines, plus strut details for the undercarriage

legs and tail wheel. The radio locator equipment between the pilot and navigator is included as well as the wing walks. Wheel well roofs, side detail and new undercarriage doors are all included and the final details are centre line pick-up brackets, radiator screens and a set of tail wheel doors.

Overall a superb set, which will add a great deal to the kit. As you have already spent over 24 pounds for the kit to start with I suspect that the addition of this set may make life tolerable, as the kit is almost devoid of interior detail. The set will put all the lack of detail right, but it can't cure the kits fit problems which is a pity, when are Revell going to dig out their old Japanese kits for us??

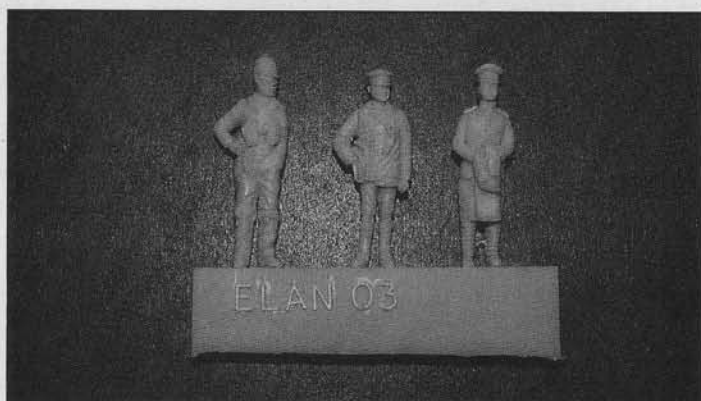
Both of these sets are up to the usual excellent standards set by EDUARD and they sure as hell beat scratch building it all (personal view there!). I have noticed the slight increase in price with these two sets, to £6.45 (up 50p), but they are still very good value considering the amount of work required to produce etched brass.

These and all other EDUARD products can be obtained direct from;

FOUR PLUS (UK)
29, Westwood Gardens,
Hadleigh,
Benfleet,
Essex.
SS7 2SH
Tel 01702 559308

My thanks to Four Plus for these review samples

NEW FIGURES FROM PP



WWI GERMAN AIR CREW

Just as 1:48 scale is starting to become the most progressive scale for new aircraft releases, so the availability and quality of quarter-scale figures has improved. Some examples out there are so good that they could be displayed as separate items in much the same way as 54mm figures, such as PP Models new WWI aircrew set. This three figure

set comprises of a relaxed looking pilot, an observer wearing goggles and helmet, and a ground orderly holding a coat of sorts.

The sculpting is clean, The proportions are generally good and the casting is very crisp. Full painting details are included and this set would make an ideal compliment to any WWI aircraft model.

WWII LUFTWAFFE AIR CREW (NORTH AFRICA)

A very neat set comprising of three figures, two of them pilots, one in shorts holding his life preserver and the other with his arms folded.

The third figure is a flack officer complete with a sunflap at the back of his peaked cap.

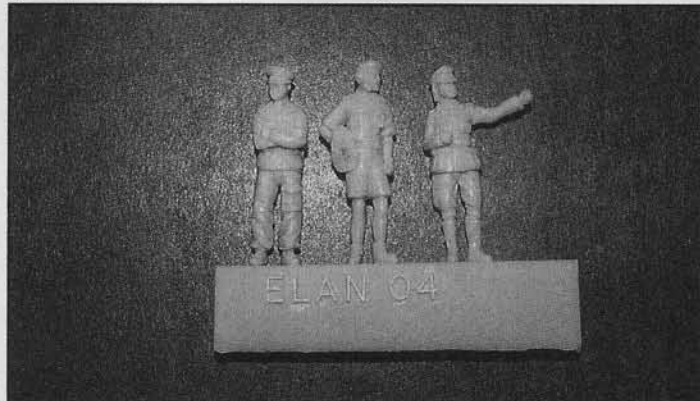
Again, painting details are good, though its up to the

modeller to mix up a good sun tan!

Excellent sculpting and superb detail make these probably the best set of figures yet released by PP. Just the thing for all those 109s, 190s and Ju87s.

How about some desert RAF counterparts.

Jon Mock



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ITALERI 109

The long awaited 1:72nd Messerschmitt Bf109F 2/4 has been released by Italeri. The kit consists of 48 grey and 4 clear pieces. All panel lines are engraved and the three decal options include : JG26 (Adolf Galland), JG2 and JG27 colour schemes. At just £3.25 this is excellent value....BUY ONE WHILE YOU CAN!

STOP PRESS • STOP PRESS • STOP PRESS • STOP PRESS • STOP PRESS •

CONSOLIDATED LIBERATOR

The Consolidated B-24 was the most widely used and produced US bomber of the Second World War. In 1935 the Army Air Corps (AAC) issued a specification, number C-212, for a new four-engine bomber capable of a maximum speed of 300mph, a 3,000 mile range, a service ceiling of 35,000 feet and a bomb load of 8,000 lbs. The design team at Consolidated answered this specification with the Model 32, this was later designated the XB-24 by the AAC. The contract for the first prototype was approved on the 30 March 1939, and the expansion of the AAC by congress later increased this to an additional seven service test aircraft, designated the YB-24.

The first prototype, construction number 39-556, came out of Consolidated's San Diego factory at Lindbergh Field on the 26th December 1940, just eight months and twenty-eight days after the contract had been approved. The design was innovative in many areas when compared with contemporary aircraft. It had a tricycle undercarriage, which greatly reduced the take-off run and the bomb bay doors rolled up, therefore reducing their effect to the airflow. Flight testing began at once and the unique Davis airfoil with its very high aspect ratio (ratio between wing chord and wing span) proved to be superior to any other.

Accepted, officially, by the Army Air Corps on the 13th August 1940, the XB-24 had to undergo some changes. The engine was upgraded from Pratt & Whitney R-1830-33s to

R-1830-41s (later changed to the R-1830-43) fitted with turbo superchargers instead of mechanical two speed superchargers. The use of the wing as an integral fuel cell, or wet wing, was not liked by the AAC and the aircraft was therefore fitted with standard self sealing fuel tanks. Minor other modifications were made and these resulted in a weight increase of some 2,700lbs and a change in designation to the XB-24B.

In the meantime the seven YB-24s were modified to incorporate all the changes made to the XB-24 before they left the production plant. With the outbreak of the Second World War in Europe, the French government placed an order for 60 B-24s with an option on 160 more, they were never to receive them however, but the British government did take over the orders in 1940 and to ensure they were supplied as soon as possible the Consolidated company gained permission to send the first six YB-24s and 20 production B-24As to Britain. The YB-24s were designated the LB-30A and they were collected by RAF crews to Montreal. Coded AM258 to AM263 inclusive, however the aircraft were found to be totally unacceptable to the RAF crews. They were therefore relegated to transport duties with Ferry Command and operated by British Overseas Airways Corporation (BOAC) flying the trans-Atlantic route. Twenty LB-30Bs (actually B-24As) became the Liberator I with the RAF and were serialised AM901 to AM929 inclusive. These air-

craft were ferried via Montreal and were fitted with ASV radar and depth charge racks before joining 120 Squadron for anti-submarine operations in the Atlantic, during 1941. With the movement of six YB-24s to Britain the US AAC only got one pre-production YB-24, serial number 40-702. It was delivered in May 1941 and was quickly followed by eight production B-24As. These aircraft were used to ferry troops to the UK, as well as two being used to take the Harriman Mission to Moscow.

The Liberator soon changed its appearance with an extension of some three feet being added to the nose. This extension had by no means been needed for any design reason, it was simply because Reuben Fleet one of the aircraft designers did not like how the aircraft looked. 'It does not look right! Too stubby!' was his comment. These first production B-24s became the Liberator II in the RAF and were the first ones to be fitted with power operated gun turrets. Two Boulton Paul turrets with four .303in machine guns each were fitted, one at the tail and one as a mid upper. The first Liberator II (AL503), crashed on a test flight, resulting in the death of Consolidated test pilot, William Wheatley. This crash delayed deliveries of the aircraft to the RAF, with them receiving their first in August 1941. With the attack on Pearl Harbour the AAC needed aircraft quickly and they therefore requisitioned 75 Liberator IIs from the RAF production run. These aircraft were fitted with a Martin mid-upper turret

in place of the Boulton Paul versions. Of these, 46 saw active service with the USAAC, six crashed and the remaining 23 were later returned to the RAF. The RAF had 139 Liberators IIs and they were serialised AL503 to AL642 inclusive, with an additional machine, FP685, as a replacement for AL503.

Nine B-24Cs were delivered from late 1941 and this variant had a Martin powered upper turret fitted just above and behind the cockpit. Now fitted with the Turbo-Super Charged R-1830-41 engines the engine nacelles had to be revised. This resulted in oval nacelle which incorporated two air intakes, one on either side to feed both the supercharger and its intercooler. None of these B-24Cs saw active service however and all were relegated to testing or crew training.

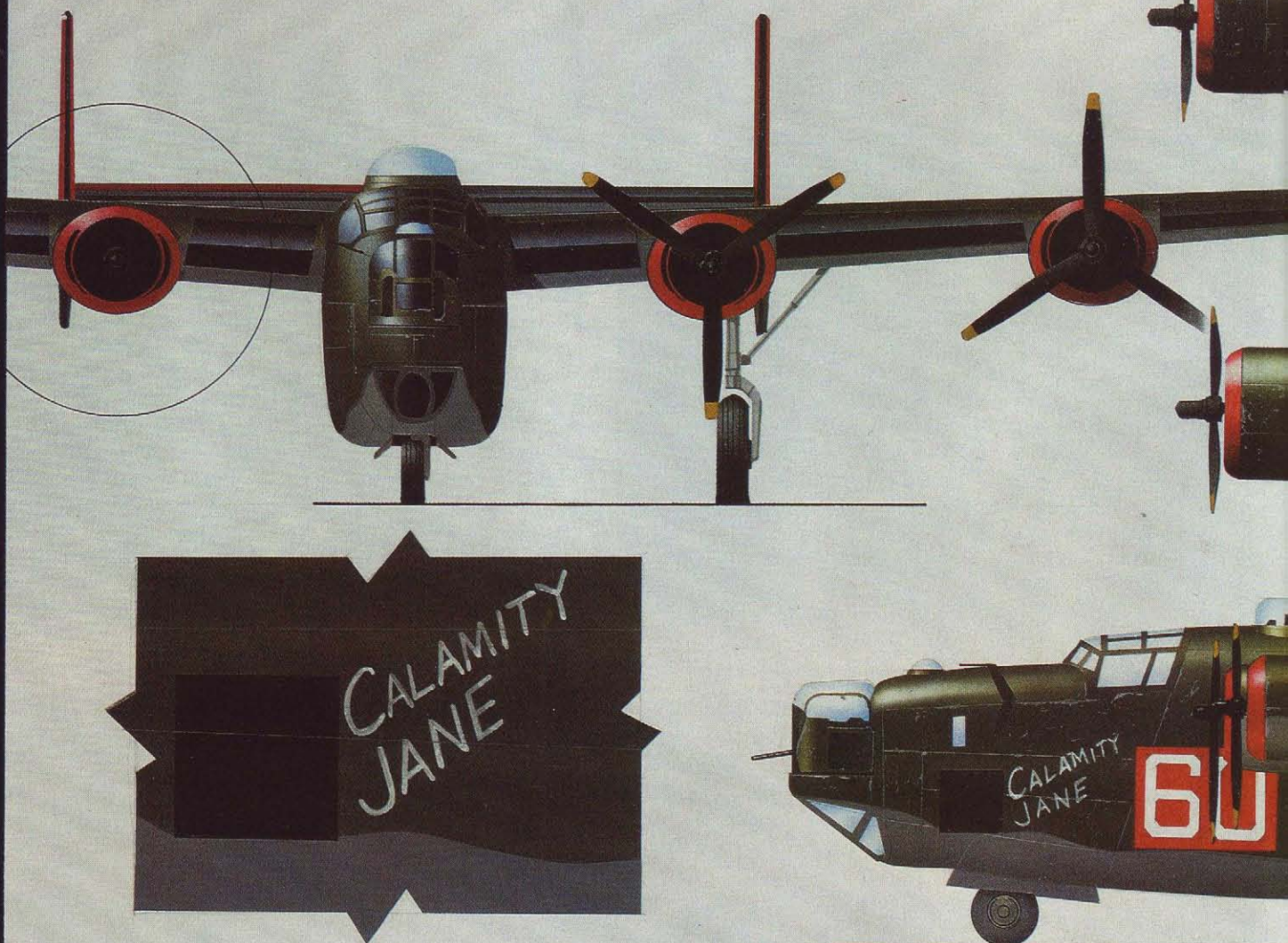
The first mass produced variant manufactured by Consolidated was the D series. Deliveries started in late January 1942 and the aircraft now had P&W R-1830-43 engines fitted. The 7th aircraft had a Bendix remote controlled turret fitted instead of the waist gun positions. This unit was aimed via a

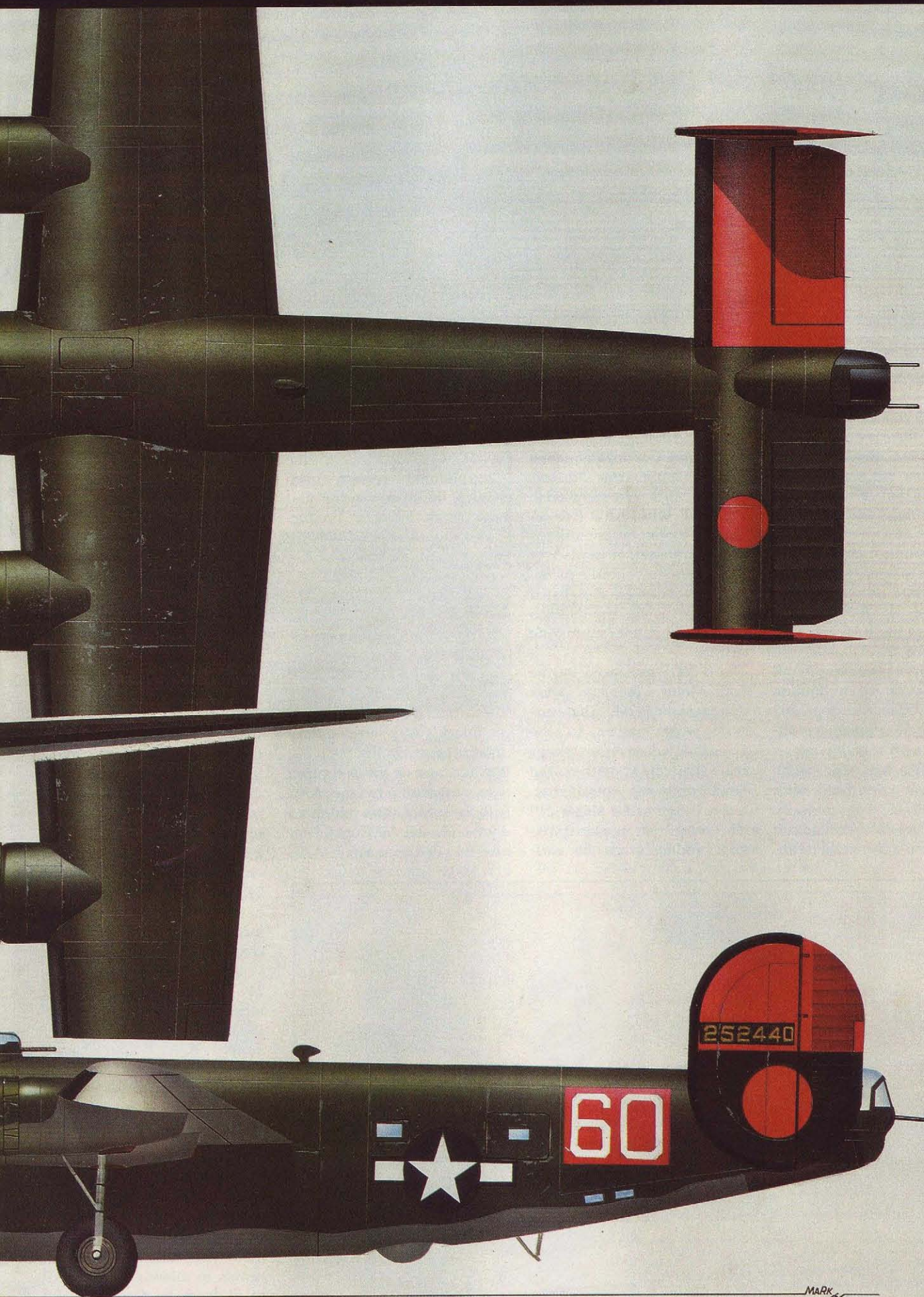
periscope and it caused many gunners to suffer from vertigo and sickness, after the 287th aircraft this turret was deleted and faired over. Later a manned Sperry turret was fitted, this fully retractable turret did mean that the aircraft could be landed without fear of it hitting the runway, a fact which must have been consoling for many a wounded air

Consolidated B-24H Liberator 252440 'Calamity Jane' of 725th Bomb Squadron, 451st Bomb Group, 15th Air Force, Castelluccio, Italy. Upper surfaces in Olive Drab (FS34087), with Aircraft Grey (FS36473) undersides. Squadron markings in Red. National insignia on fuselage sides, port wing (upper) and starboard wing (lower) surfaces. This aircraft subsequently crashed during a raid near Vienna.

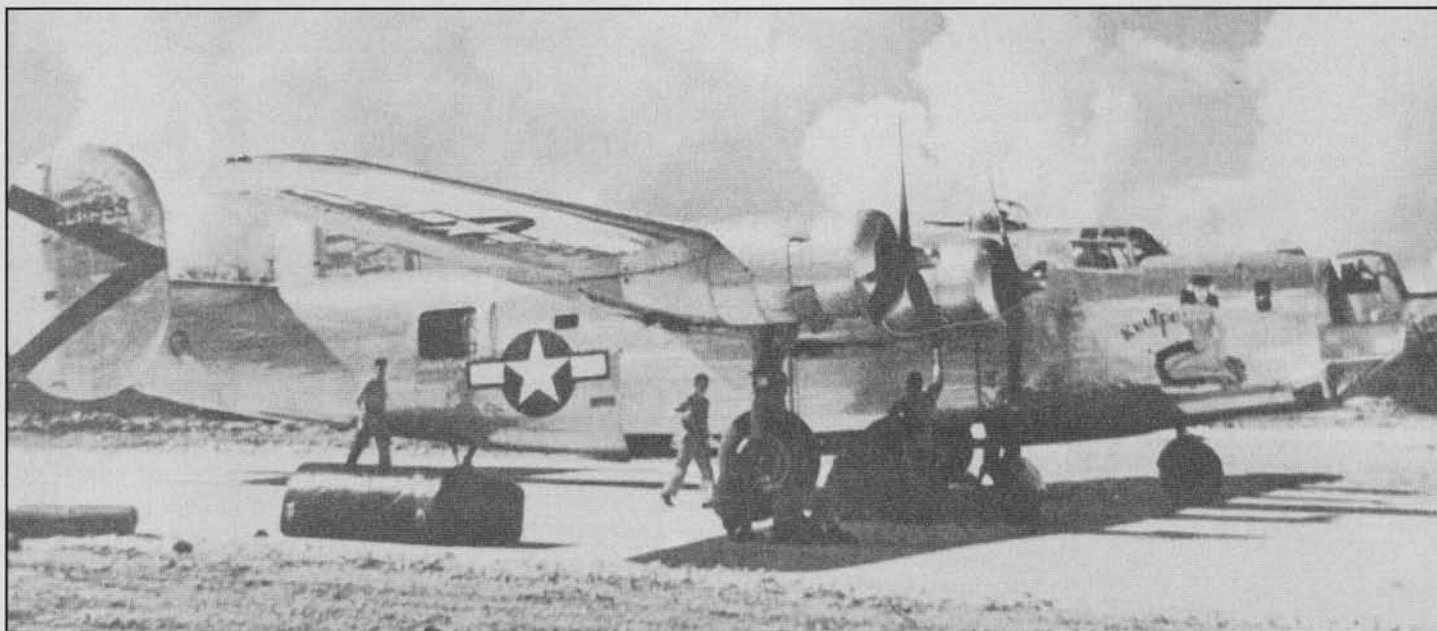
USEFUL REFERENCES.

The markings for this aircraft can be found on Super Scale decal sheet number 72-24, which gives markings for various B-24s, models D to J.
 B-24 Liberator in action- Squadron Signal No.80, 1987. A lot of good photographic reference, depicting all variants, along with colour schemes etc.
 Mighty Eighth In Colour- Roger Freeman, Arms and Armour, 1991. Depicting the various 8th Air Force units stationed in England, with colour photographs throughout.
 Sharks Teeth- Nose Art- Jeffery L. Ethell, Airline, 1992. Describing the history of the sharkmouth marking up to the present day. This book contains some very nice photographic reference on B-24s.
 The above were used in the preparation of these illustrations, although there is a lot more available on the B-24. My thanks to Barry Ketley and Malcolm Lowe for their assistance.





MARK
ROLFE



gunner!!

The B-24D was the first variant at which the Production Pool Programme came into effect. This system did not restrict the production of the type to Consolidated, but allowed other manufacturers such as Ford, Douglas and North American to make either complete aircraft or components. A total of 366 B-24Ds were supplied to the RAF and they were called the Liberator III. The tail turrets on these aircraft were replaced by a Boulton Paul unit fitted with four .303 machine guns. Some were fitted with a short stub wing on the lower fuselage edge, below the cockpit and fitted with eight 5i HVAR (High Velocity Aircraft Rockets). The aircraft also boasted a five million can-

dlepower Leigh Light under the starboard wing and in this configuration they joined Coastal Command for anti-submarine duties. Some B-24Ds were supplied to the RAF with ASV (Air-to-Surface-Vessel) radar mounted in a chin blister, or in place of the Sperry ventral turret. These aircraft were designated Liberator GR VIs and they too undertook anti-submarine patrols.

The B-24Ds produced by the Ford Motor Company were designated the B-24E. These aircraft were similar to the Consolidated version except that they had neither the Bendix or Sperry ventral turret. Instead they had a single .50i machine gun in its place. The total production for this vari-

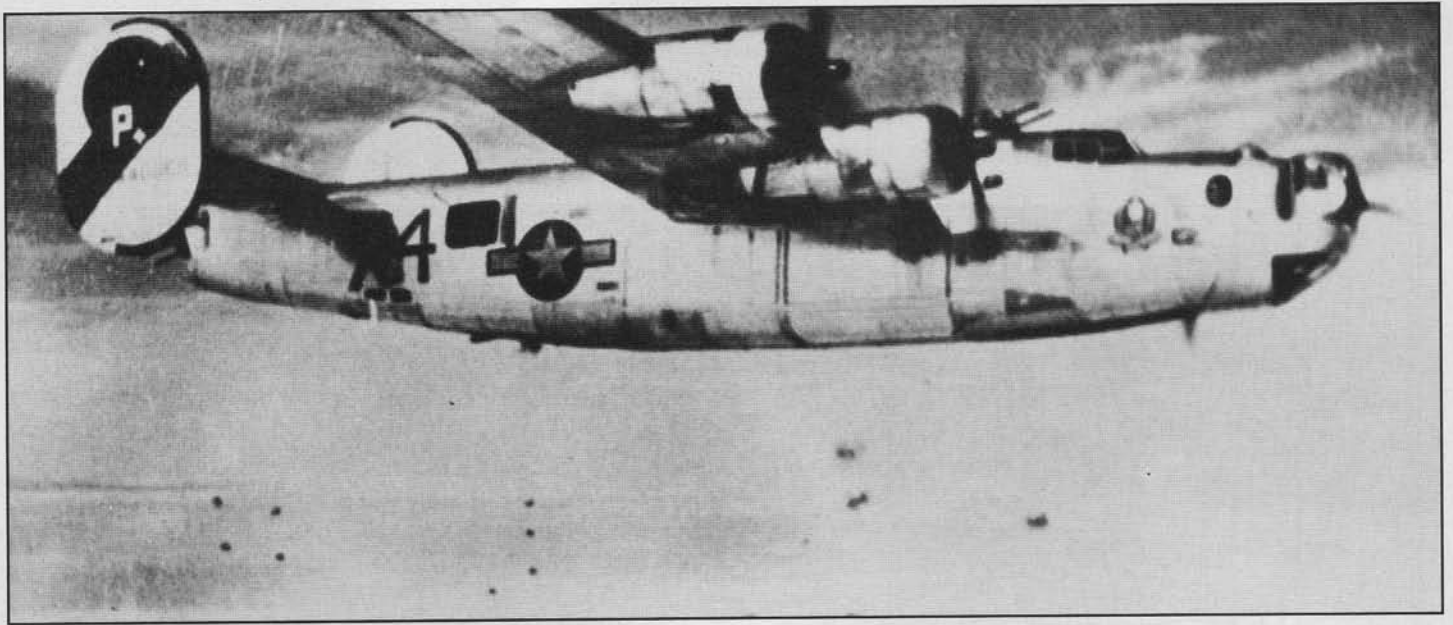
ant was 791. The B-24G was the B-24D produced by North American at their Dallas plant. It was identical to the Consolidated version even having the Sperry turret and nose guns, however production only reached 29. Many B-24Ds were field modified to have a Consolidated A-6 tail turret fitted in the nose. The need for fast and effective defensive armament in the front of the B-24 was soon recognised as both German and Japanese pilots soon found the aircraft's weak point, a head-on attack. After an unofficial modification by the 90th BG, the addition of the A-6 turret was authorised by the AAC and the turrets were retrofitted by the Hawaii Air Depot, later the Oklahoma AAC

Modification Centre also started modifying B-24Ds with the same turret, although each unit's modifications looked quite different.

The weakness shown from frontal attack in the B-24 was corrected with the next variant, the B-24H. The Emerson company had already been working on an improved version of their tail turret for use in the Liberators' nose, but the urgency placed on the task by the AAC allowed them only three and a half months to complete the entire programme. Emerson sent Ford the specifications and they tooled up for production. The tail turret on the B-24H was improved as was the Martin upper turret, and the waist gunner positions were now enclosed. Production of the B-24H was slow, as Ford did not have all the necessary jigs to incorporate all the structural changes. The North American version of the B-24H was the B-24G-1 and 430 were produced, most of which were used by the 15th Air Force.

Supplies of the Emerson turret were limited and it was soon obvious to Consolidated that an alternative was required. To this end they set about modifying their A-6 tail turret for use in the nose of the B-24. The first production version was delivered in August 1943 and it was designated the B-24J. By the middle of 1944 there were enough Emerson turrets to allow Consolidated to fit them to production B-24Js instead of the A-6 turret. All five factories were now





producing the B-24J and it was to become the most produced variant within the entire Liberator series. The only problem was that each factory made a slightly different version of the aircraft and therefore parts were often not interchangeable, leading to a logistical night-

mare!

The B-24L was basically a redesigned and lightened version of the B-24J. The increases in weight which had arisen with the J series were corrected in the L. The ball turret was deleted and replaced with twin .50 calibre machine guns and

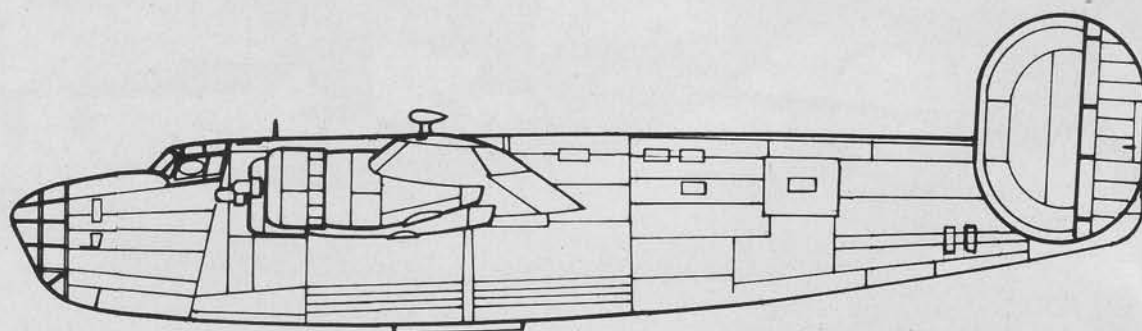
the waist gunners positions were finally enclosed on Consolidated built versions, and a 'Stinger' tail gun was fitted to save weight. Just Consolidated (now called Convair) and Ford were now instructed to produce the Liberator, North American and Douglas having been removed from the production scheme from this variant. In all 417 B-24Ls were produced by Convair and 1,250 were made by Ford. After July 1944 the AAC ordered all B-24Ls to be made without any tail turret fitted, this allowed specific tail armament to be fitted once the aircraft was within its operating theatre. Those built without the tail turret by Convair remained the B-24L, whilst those made by Ford became the B-24M. This was soon changed however and the 115 B-24Ms made by Ford

were redesignated B-24Ls.

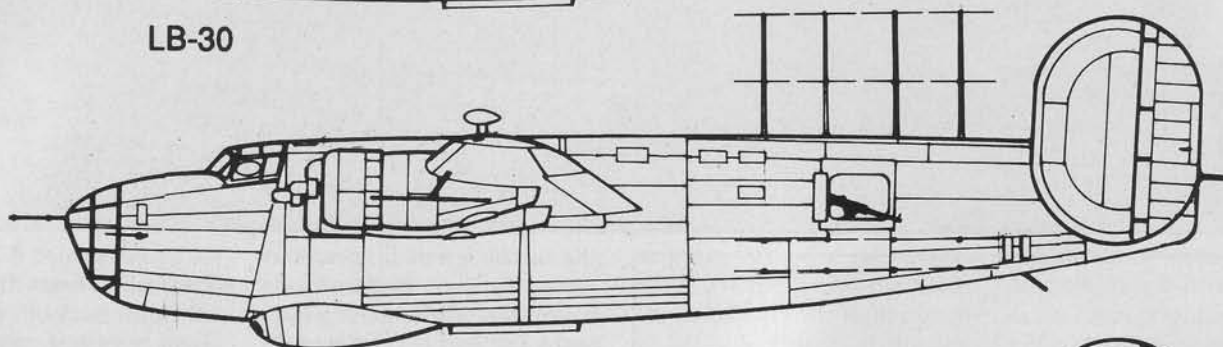
The final B-24 was the M series, not the variant mentioned above, but a new version with a light weight version of the A-6B turret in the tail and a new cockpit canopy. Production of the Liberator was officially terminated in June 1945 and by then Convair had made 916 B-24Ms and Ford had produced 1,677.

The B-24 went on to serve in various air forces up until the mid 1950s. It had become the largest produced US bomber of the war and it had served with 15 Allied nations in all theatres of operation, it had truly been what the Air Ministry said; 'Liberator, an airplane that can carry destruction to the heart of the Hun, and thus help you and us to liberate those nations finding themselves under Hitler's yoke'

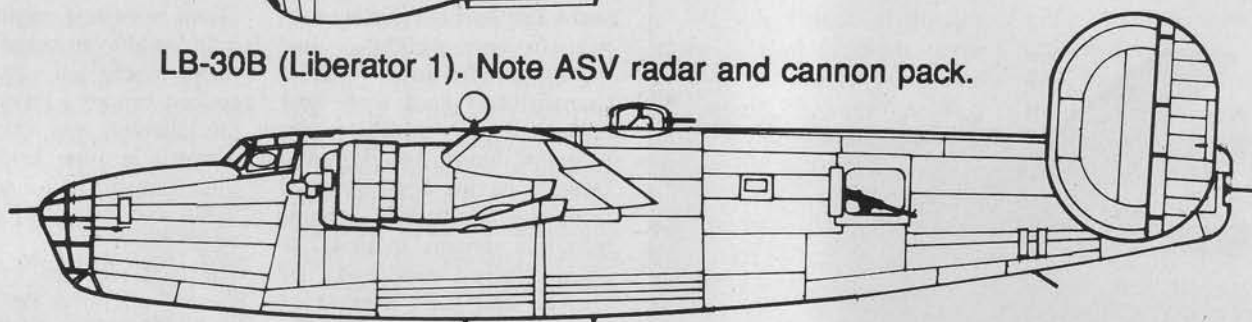




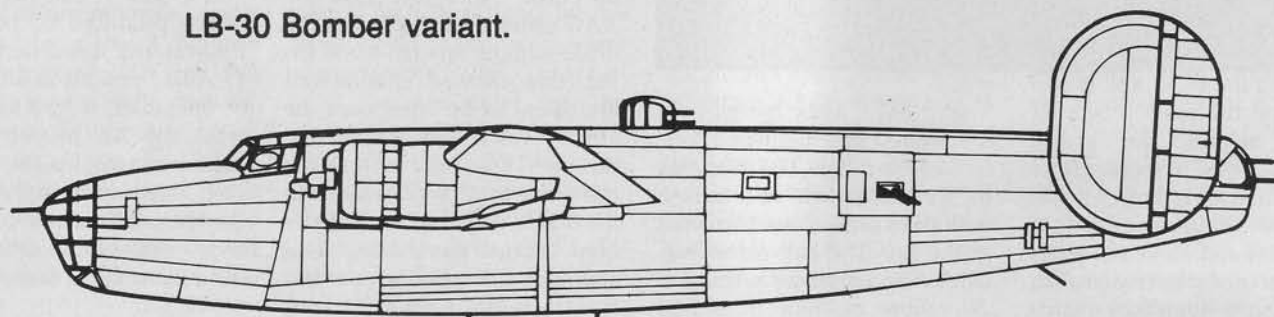
LB-30



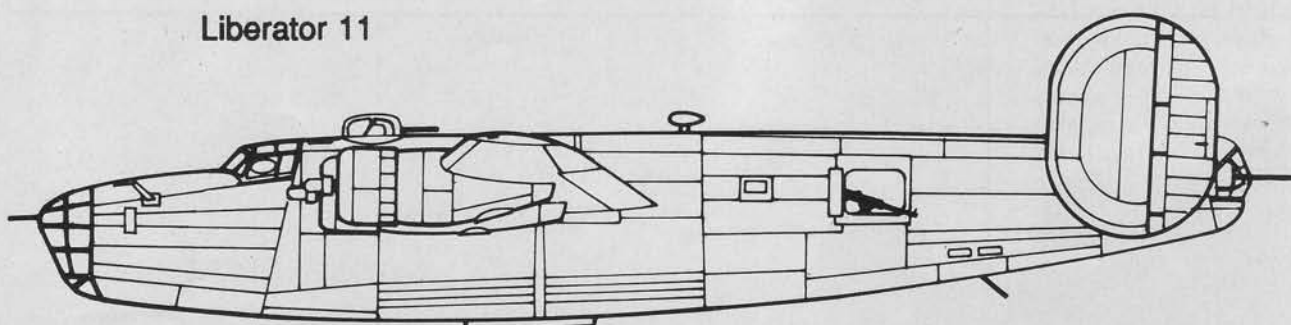
LB-30B (Liberator 1). Note ASV radar and cannon pack.



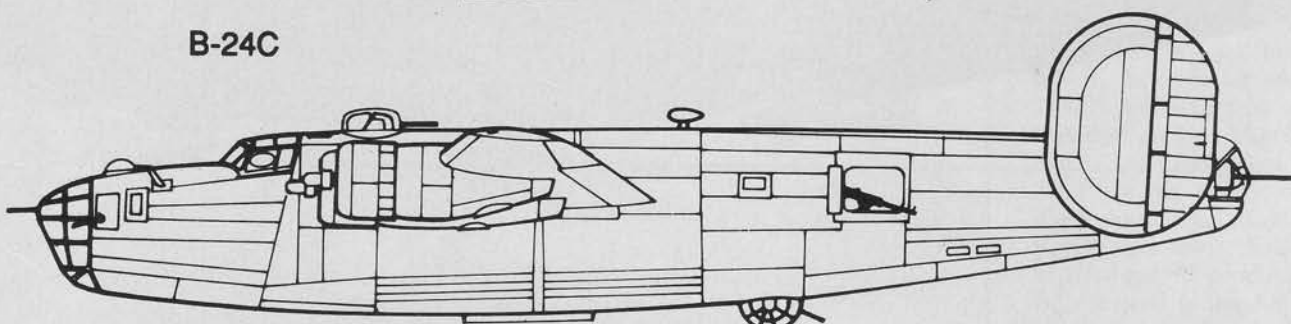
LB-30 Bomber variant.



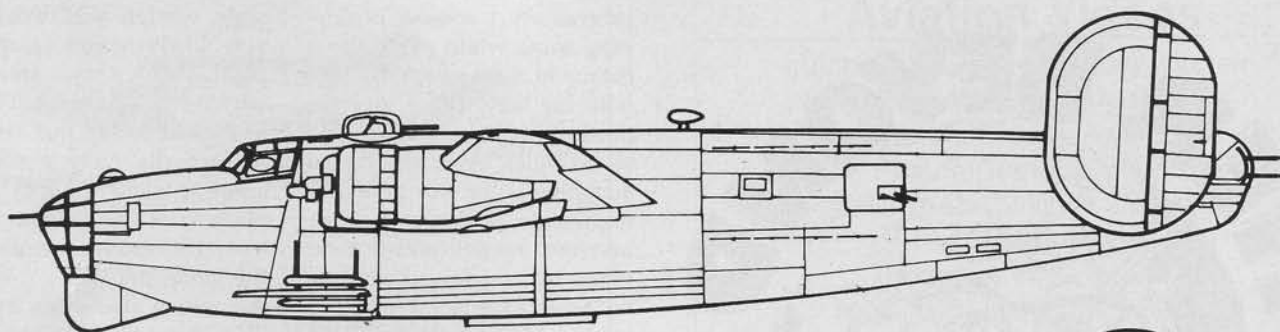
Liberator 11



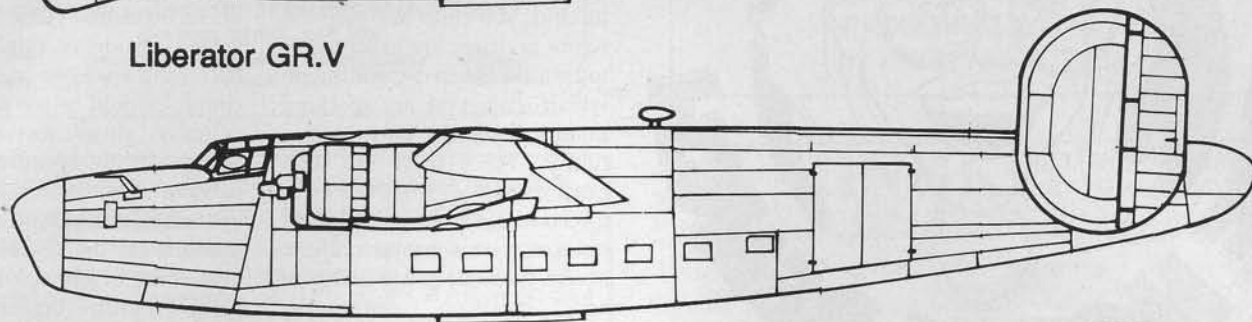
B-24C



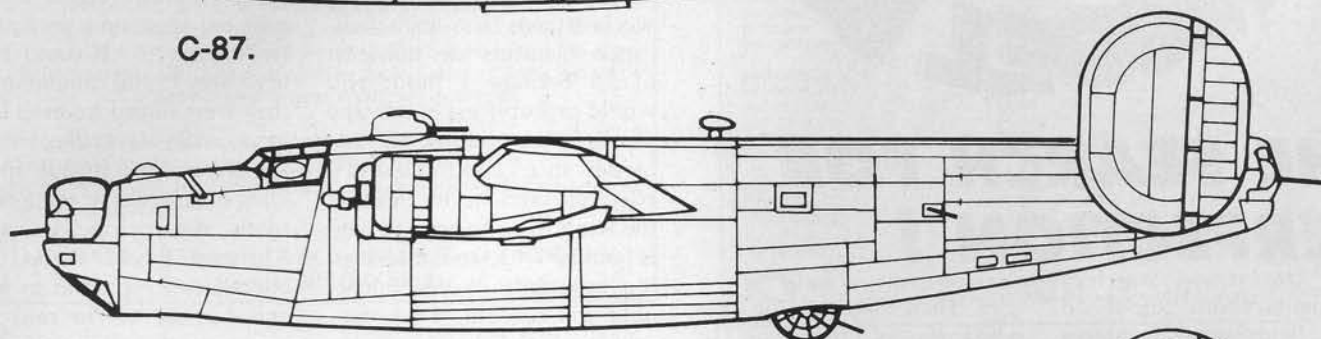
B-24D



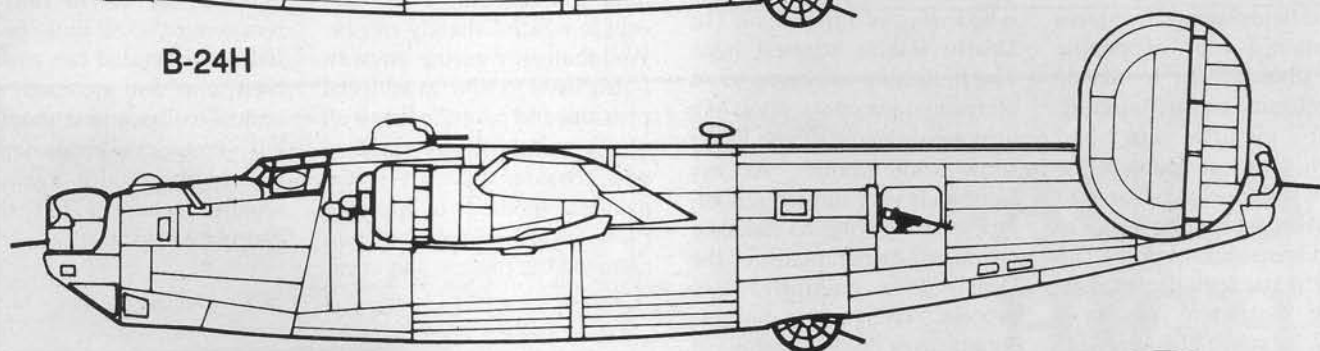
Liberator GR.V



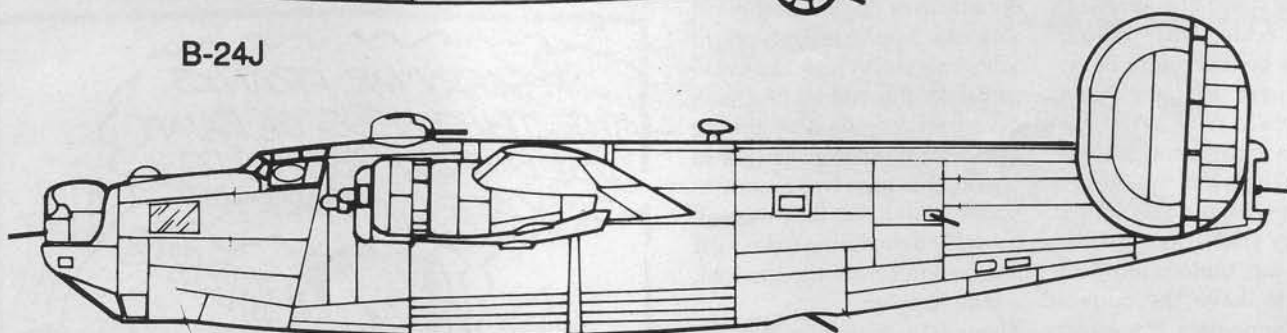
C-87.



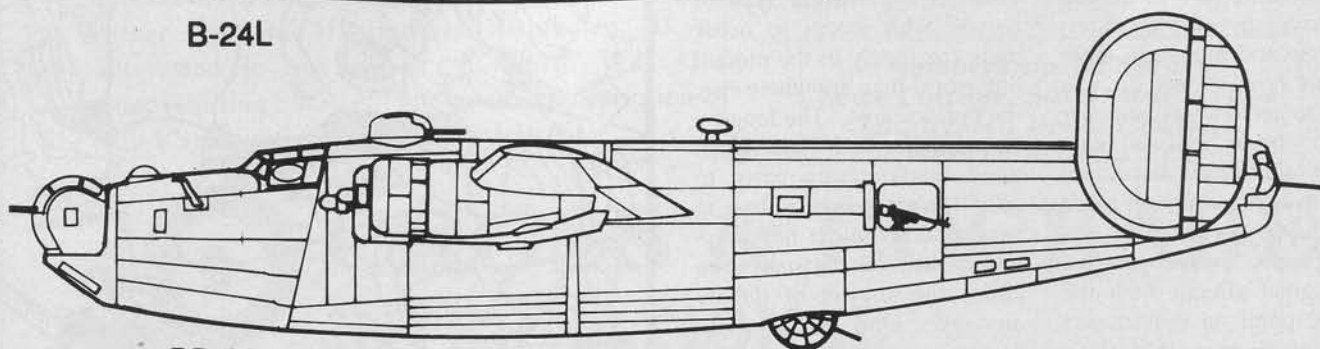
B-24H



B-24J



B-24L



PB4Y-1 Navy Liberator.



THE SEARCH FOR PERFECTION !

Arguments about colour do not end here though. It amazes me when I hear of people using photographs to decide the colours of an aircraft. Colour pictures are bad enough, I've lost count of the times when I have appeared to be a rather interesting shade of lilac in snap shots, but, as The Dearly is particularly fascinated by Luftwaffe planes of W.W.II, he spends his time trying to decide what colour green this or that might be by pouring over old black and white shots!!! Why? All I can ever begin to make conclusions about is which bits are darker than others. More significantly is it so very vital? Don't get me wrong I can understand you wanting to have the correct colour scheme on a plane you may have invested considerable time and money in making, but how correct do you expect to get? It may be easier if your chosen field is more modern aircraft but if you are like The Dearly how an earth can you be certain that you have it right. Even if you had the original aircraft with the original paint on it I suspect many of them would have faded.

Then there are the ones who fuss over dimensions; The Dearly stands accused here. The first thing he seems to do on coming into possession of a new moulding is try and locate some scale plans. As my German is very limited school-girl speak, having to translate technical German plans for the Dearly is a painfully slow process. Why can't he like American or English Planes? If it looks approximately right who cares? When Leonardo unveiled the Mona Lisa was his subject engulfed by people brandishing vernier gauges to check if her nose was exactly to scale? I think not, they were all too busy demanding to know if she couldn't have tried to look a little happier.

There is a particular type of person who seems to occur more frequently in the modelling world than anywhere else; the perfectionist. The lengthy discussions which I am sometimes inadvertently party to often have my eyes rolling to heaven as I wonder how anyone could really, actually care about the subject of debate anyway. One of the more amusing ones, well I think it's funny, is how to achieve scale

colour. This seems to be a process which consists of slopping some white paint into a colour to, I assume, now bear with me here, either give the illusion of that colour spread over a much larger area than it actually is or to give the impression of greater distance between model and viewer when said model is complete. But when I say slop I am being unkind, you can't just slop the white in, there are exact ratios to be adhered to depending on which scale you are working in, and that's the bit I think is funny. Since there are such exact quantities involved I am forced to conclude that at some point someone has actually, no doubt through some complex and startling arithmetic, worked them out. Such dedication astounds me, not least of all because I think you would probably get exactly the same effect by putting all your models in a glass fronted display case and never cleaning the windows. As anyone who is familiar with the housekeeping standards in this household will confirm, it is a concept to which I already ascribe. Well that's my excuse anyway. I also have to bow to editorial pressure and mention that it all seems a little involved when you consider that given the available methods of applying these paint schemes if you reversed the process and creat-

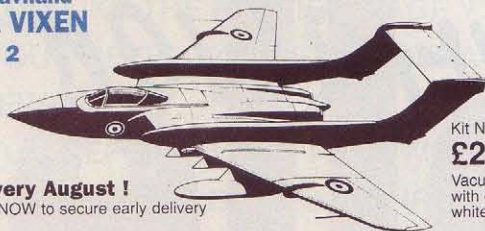
ed a full size model from the scale version you would be very likely to get a layer of paint about a foot thick, so why fuss. You can tell I was instructed to say that because it's actually quite a sensible argument and I'm not much given to devising those.

Ultimately I wonder if the modelling world does not do itself a disservice by this perfectionism. If I were a young modeller thinking off becoming engaged in the club circuit I would be too scared to actually show anyone my efforts simply because of the barrage of criticism that might be forthcoming. And anyway, who's to say that in a fit of silliness some bright spark didn't paint a Spitfire bright yellow with red spots on a particularly dull day!!! It could have been very useful camouflage if they were forced to crash land in a trifle (a trifle should always have a liberal sprinkling of Smarties or some other tooth destroying delicacy). Ah, now I have turned the attention of my mind to food and I must off to raid the refrigerator, so all those people I've just offended can rush for their biro and notepad now, and I'll be back next month to talk your ear off about nothing in particular once again. I wonder where I left those chocolate biscuits?!



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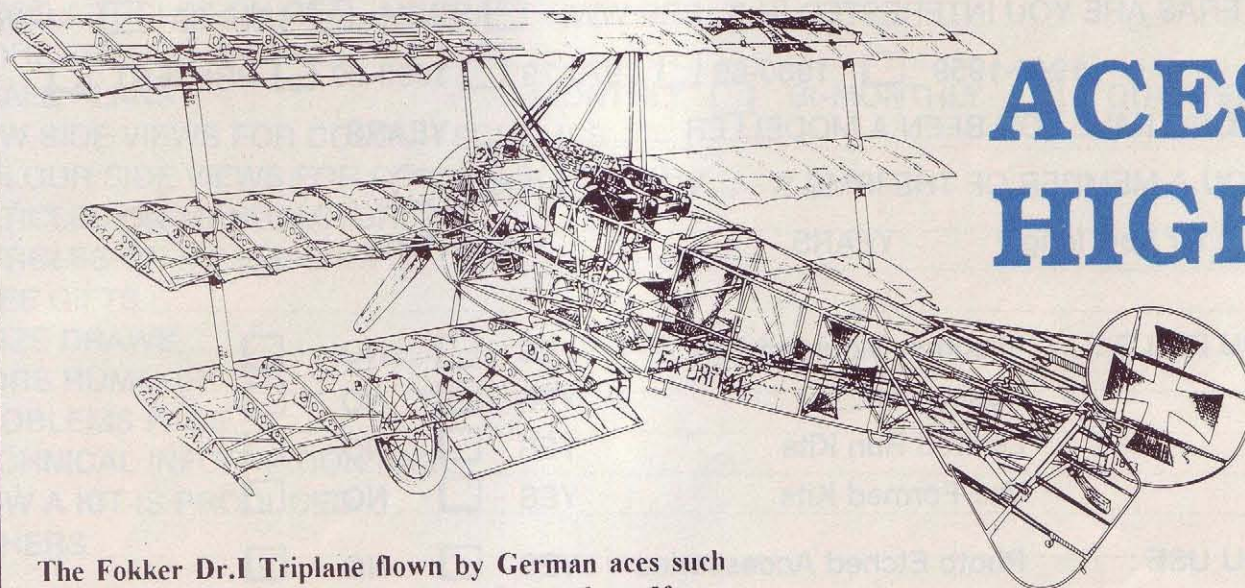
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Spotlight On....

ACCURATE MINIATURES

The first in our series of spotlight features takes a look at a new US model manufacturer making a name for itself in this country

In the first of these "spot-light" articles for new companies supplying Scale Aviation Modeller with review samples, we shall look at a relatively new American company called Accurate Miniatures. The company was formed a few years ago now and last year saw the arrival of their first kits.



Accurate Miniatures first release..The P-51

The range is in the familiar "scale", in other words 1/48th. This scale has always been popular in the United States and of late it has become far more so in the rest of Europe and especially Britain. The first release was the North American P-51 Mustang. Many thought this was just another P-51, but in fact it's the first Allison powered version, without any other prefix than "P-51". The aircraft was developed and flown in just 120 days and it was at the British Purchasing Commission's request that the aircraft was designed!



The P-51 as built by Jon Mock

The USAAF version of the aircraft differed from the British examples in so far as they carried 20mm cannons and American radio and oxygen equipment. We have all seen just how well this kit can be made up in Jon Mock's superb build article on the type (See Vol 1 Iss 7), so it should need no introduction to you.

The kit is packed in a very colourful and professional box, which is cellophane wrapped and

carries a seal of authenticity (stating it is a genuine first production kit). Inside are two plastic bags, one containing three green sprues with 51 pieces on them and the other contains the clear sprue (12 piece). Below that is the false bottom to your box with a set of four view black and white plans, under which are your sealed packet of decals, instruction sheet and information card telling you a bit about the aircraft and also giving you a comprehensive colour cross reference guide.

If you want to know how the model makes up you will have to look back at last month's edition, but to give you some idea, "superb" seems appropriate!



The A36 Apache

The next issue was the A-36 Apache. This kit (No 3401) is similar to the P-51 in presentation and packaging and inside the box you will find a bag of green parts, which on first glance look the same as the P-51's, but you will soon find they have numerous subtle differences. The fuselage halves are the same, but the engine nacelles are on the other end of the sprue now and are therefore completely new. The wings are completely different, having no 20mm cannon fairing but having the dive brakes fitted to the A-36 moulded into both top and bottom. The biggest sprue has now gained two bombs, cannons and intakes all unique to the A-36. You therefore get 71 pieces now, plus the clear sprue



The sprue layout for the A36

(unchanged) with 12 pieces on it and the kit is rounded off with the diagram, instructions decal sheet and painting guide.



The P-51 A

Next comes the P-51A. This time the packaging is the same but inside you will find one bag containing three grey sprues.

The fuselage and nose are the same as the P-51. The wings are similar to the P-51, but have no cannon and various detail changes. The final sprue is similar in most ways to the P-51, but it has an additional set of drop-tanks and pylons, plus intakes, pitot tube and machine guns. Underneath the sprues is the 12 piece clear sprue, decal sheet instructions and painting guide.



The P-51 A Sprue Layout

The final (so far!) member of the Mustang family released is the RAF Mk1A version. This I suspect is an example that many modellers over here purchased the P-51 or P-51A for with the intention of some-day converting it. No need now, as this new kit gives you it all. The same superb art work and



The RAF Mk1A

packaging standard as seen on the other three kits apply here. Inside there is a bag of three sprues, which this time are in a slightly darker shade of grey than was used in the P-51A kit. The fuselage and nose are the same as the P-51 kit, although the sprue now has the addition of the revised rear shelf and oblique camera. The wings are from the P-51 kit, as are all the remaining parts on the third sprue. Below the plans tray you will find a new clear sprue. This contains 13 pieces and includes the hole for the camera in the port side glazing.

As with all the other Mustangs in the Accurate Miniatures range, this kit has only one decal option. The decals are made by Jax Hobby Product in Mexico and although not up to aftermarket decals in many respects, still quite acceptable. You should also note that all these kits come with flattened main wheels as standard in each kit, so no need to heat them up over the cooker!



The Sprues for the RAF Mk1A

It is true to say that Accurate Miniatures have, as the first new injection moulded kit manufacturer in the U.S since 1961, brought a level of commitment to quality and accuracy unequalled by any other manufacturer. Many people assume they are a huge, multi-national, multi-million corporation, but how far from the truth that is! This is a relatively small company who are thinking and doing big things. We have all seen just how good the P-51 can be made in Jon Mock's article and an in-depth review of the RAF Mk1A will soon follow. In the future, Accurate Miniatures intend to release a range of TBM Avengers, all will be armed for a specific theatre of operation and will include some amazing detail as standard. After this will come variants of the Il-2 Sturmovik, still in 1/48th scale and with one version on skis!

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70. RAF: Vulcan B.2/B.2A, all finished in anti-flash white, 9, 83, 12, 35 Sqn. 230 OCU 1963, 27 Sqn. 1962. Tornado GR.1 617 Sqn. or ASF 1982-3. Lightning T.4 74 Sqn. 1965. R.Navy Sea Harrier FRS.1s 800, 801, 809 Sqn. represented 1982-83.
71. RAF: Vulcan B.2/B.2A, all aircraft camouflaged, XM597 101 Sqn. and 'Black Buck' ops, 1982-3, 50 Sqn. 1982-3, 35 Sqn. 1976, 617 Sqn. 1979, 27, 35 Sqn. 1977, 230 OCU 1980, 9 Sqn. Sea King HAR.3 202 Sqn. 1982 as in Falklands. R.Navy Sea Harrier FRS.1 809 Sqn. 1982.
73. RAF: Tornado GR.1 27 Sqn. or TOEU Boscombe Down 1983-4. Phantom FGR.2s 23 or 29 or 56 Sqn. as at I.A.T. 1983. Further alternative 23 Sqn. aircraft as at RAF Stanley 1983.
74. NATO Fighting Falcons: Dutch Air Force choice between F-16As 'J-252- 322 Sqn. July 1983 in special 40th anniversary scheme, 322 Sqn. (usual) 1983, 315, 311 Sqn. 1984, RF-16A 306 Sqn. 1983, F-16B TCA 1983. Belgian Air Force F-16As 31, 349, 350 Sqn. F-16B 10th F.B.Wing all as in 1983. Danish Air Force F-16As 1984, Esk.723, Esk.730, F-16B Esk.727 1983. Norwegian Air Force F-16As 331 Skv. 1982, 334 Skv. 1984, F-16B 332 Skv. 1984, F-16B 322 Skv. 1983. RAF: Harrier GR.3s choice between 3 Sqn. as in 1977 and 1983, 1, 4 Sqn. 1977, 'HARDET/1453 Flt. 1983, 1417 Flt. 1980, or T.4 233 OCU 1980-82 as at Yeovilton, or T.2A 20 Sqn. 1974.
75. RAF: Tornado GR.1 15 or 16 Sqn. 1984, also nose emblem only for TWCU/45 Sqn. to update ZA562 on set No.67, Jaguar GR.1 41 Sqn. Sept 1983, amended fuselage and fin emblems and individual letter only. R.Navy Harrier T.4N 899 Sqn. 1984. Names for 809 Sqn. Sea Harriers to update set No.71 also included.
76. RAF: Phantom F-4J(UK) 74(F) Sqn. 1984-85. Any one of the fifteen sq. aircraft can be modelled. Tornado F.2 229 OCU 1984-5. Belgian Air Force Mirage 5BR 42 Sqn. 2 Wing 1984, in special Sqn. 30th ann. scheme.
77. RAF: Tornado GR.1 20, 31 Sqn. 1984-5, Lightning F.3 or F.6 LTF 1983-85 both having three-tone grey finish. Also included as options for the 5 Sqn. Lightnings on sets 65/66 are two sharkmouth sets as in 1984.
78. RAF: Lightnings of the non-operational units, choice between F.1A or T.4 226 OCU/65 Sqn. 1972, T.5 226 OCU/145 Sqn. 1970, F.1A 60 MU 1974, F.1A Binbrook TFF 1973, F.3 2T Sqn., 226 OCU 1974, F.1 AFD Sqn, CFE 1961, Harrier GR.3 choice between XV809 3 Sqn. with dark green overall upper surfaces, or XV738 4 Sqn. with dark sea grey overall upper surfaces, 1984.
79. 'Raspberry Pipples' all, Dakota C.3 ZA947 RAE Farnborough, as at I.A.T. 1985, in special Dakota 50th anniversary scheme. Alternatively may be in a mail everyday scheme, Hunter T.7 choice between XL563 RAE Farnborough, Aviation Medicine 1982 or XF321 RAE Bedford 1980. Gazelle HT.2 Empire Test Pilots School 1983-85.
80. RAF: Tornado GR.1 14 Sqn. or 17 Sqn. 1985. Hawk T.1/T.1As in greys schemes 1984-85, choice from the following options: 79 or 234 Sqn. 1 TWU Brawdy, or 63 or 151 Sqn. 2 TWU Chivenor, Hawk T.1 ETPS 1985 with 'Raspberry Pipples' finish. Set also includes final unit emblems as applied to Harrier GR.3s of No.1453 Flt. Falklands 1984.
81. British WW2 dull red letters and numerals for standard 48" high by 24" wide by 6" stroke squadron codes. Intended primarily for large and some medium sized aircraft.
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85. RAF Wyton based Canberras, choice between E.15 100 Sqn. 1983, T.4 231 OCU 1983, T.17 360 Sqn. 1985, PR.9 1 PRU 1985, Italian Air Force F-104 Starfighters, choice from F/RF-104Gs of 3rd Stormo, and F-104S machines of 5th (Fairford 1985) 9th and 53rd Stormos.
86. RAF: Hunters, choice between F.4 71 Sqn. 1956-57, F.6 1 Sqn. 1959, F.6 26 Sqn. 1958, FGA.9 1 Sqn. 1962, FR.10 4 Sqn. 1964, Hawk T.1 4 FTS 1981, Armees de l'Air Mirage IIIE, 1985 special schemes, choice from No.436 '2-LR' E.C.3/2, No.526 '3-JV' E.C.2/3, No.501 '3-BR' E.C.1/3.
87. German Tornado IDS aircraft, choice from TTE Cottesmore 1981, JBG.38 1983, WaKo Erding 1982, Erprobungsstelle 61 1980, with separate codes included to enable a wide modelling choice of different aircraft from the units listed. Belgian Air Force Mirage 5BA 'BA63' 8 Sqn. Oct/1984 in special 15th anniversary scheme.
88. RAF: Meteors selection, FR.9 8 Sqn. 1959, F.8 or NF.12 or NF.14 64 Sqn. 1957-58, NF.11 68 Sqn. 1958, F.8 or NF.12 or NF.14 153 Sqn. 1956-57, F.8 604 Sqn. 1957, Armees de l'Air: Mirage IIIE E.C. 2/3 1978, Mirage 5F E.C.3/3 1974/76, Mirage IIIC E.C.2/10 1979/85, Mirage 5F E.C.2/13 1980, Mirage IIIR E.R.1/33 1978. By using optional unit emblems from this set, and optional ranges of small fin numerals and nosewheel door letters plus set 63 and various kit decals many further Mirage IIIs can be made.

NOTE: To allow the maximum number of squadron options, many of our sets do not include roundels, fin flashing and serial numbering. The two former are intended to come from the relevant kits or MODELDECAL sets 54 and 107 and the latter from sets 33-35, 58-61, 104-106 all as appropriate. 'MODELDECAL' style fully illustrated sheet, giving decal locations, full colour scheme details and a selection of helpful photographs is also included with most sets.

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Fewest of the few

When Winston Churchill coined the famous phrase praising the 'Few' of the Battle of Britain, little did he realise that soon afterwards the Hawker Hurricane would soon be instrumental in holding the enemy at bay in another theatre of operations. The 'Few' of the Battle of Malta were fewer still; the Spitfire stole the limelight and the epic resistance of Malta's Hurricanes has been nearly forgotten. Richard J. Caruana describes the Hurricane in detail and pays homage to the handful of Hurricanes and their pilots at Malta in 1940 and early 1941.

In October 1933, Sydney Camm embarked on the 'Fury Monoplane' project which was considered at the time to be a direct development of the superb Fury biplane. With the introduction of the Fury into service the designer condescended that the biplane formula had reached its maximum limits of performance and design. Originally planned around the Goshawk engine, the new aircraft was completely modified to accommodate a new powerplant which, although still at the development stage, promised to revolutionise British aeronautical design over the following decade.

This new engine not only promised a big step in power but also in overall performance coupled with unprecedented compactness. It was the Rolls Royce PV12, destined to become famous the world over as the 'Merlin'.

Design Development

Detail design of the new aircraft was at an advanced stage towards the middle of 1934. A special 1:10 scale model was constructed for trials at the National Physics Laboratory and tests proved positive

enough to enable the Air Ministry to write Specification F36/34 within a few months. This called for a "Single-seat, fighter, high-speed monoplane".

By February 21 of the following year, Hawker were awarded a contract for the first example although actual work on the aircraft had already started months before as a private venture, so confident was Camm of the new design.

Apart from the radical change in power-plant and airframe, great attention was paid to establishing the most practical and efficient layout for the new fighter's armament. This layout was planned as a model for all future fighters which the Royal Air Force (RAF) would need in future years, including the Spitfire, which was also taking shape at that time.

Sydney Camm was of the opinion that the new generation of fighters needed a very heavy rate of firepower due to the high speeds which were being forecast, not to mention the fact that the Messerschmitt Bf.109 was already earmarked as a possible future opponent.

The choice of an eight-gun battery was established and these were chosen after extensive experiments by the Aircraft and Armament Experimental Establishment (A&AE) at Martlesham Heath. The eventual winner was the American Colt which, with very minor modifications, was adapted to use 0.303 in-calibre ammunition. In this form this gun became known as the Browning in its license-production form with B.S.A.

Detail Design

The monoplane wing was not the only new feature of the Hurricane. If full benefit was to be gained from the higher performance that was being expected, the aircraft had to be as clean as possible. The

undercarriage, therefore, had to be retractable with inboard operation to give a wide, stable track when on the ground (originally the tailwheel was also retractable). The next innovation was the enclosed cockpit cabin for the pilot, a feature which became necessary due to the increased slipstream that an open cockpit would generate at such high speeds. This rear-sliding canopy also afforded the pilot with a better environment although it was at first looked upon with some scepticism by hardened service pilots.

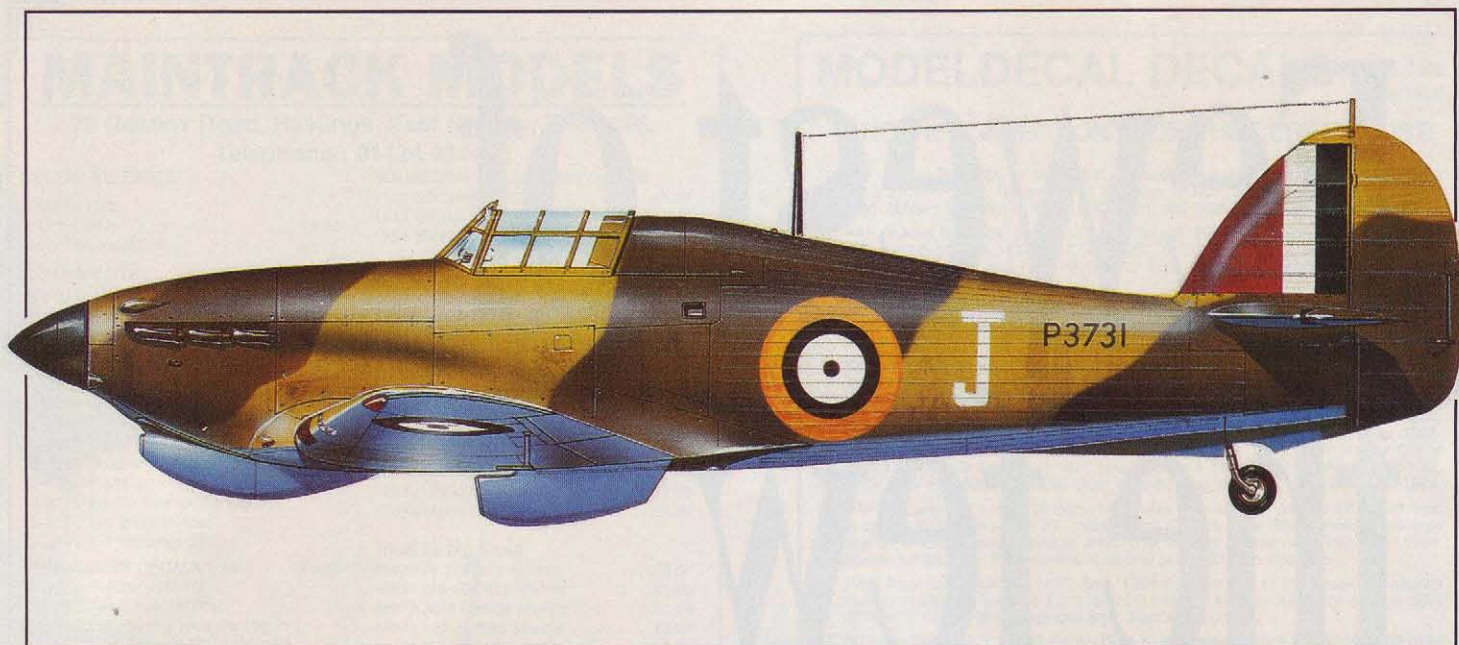
The First of the Many

Ft Lt P.W.S. Bulman took up the first prototype (K5083) into the air on November 6, 1935 from Brooklands. The official trials on this prototype, resplendent in its all-silver finish, were conducted at Martlesham Heath some months afterwards, that is in February of the following year. In this form the aircraft grossed 2437kg and had a Merlin 'C' of 1025 hp driving a fixed-pitch, two-bladed wooden propeller. This resulted in a performance of 430km/h at sea level, 504km/h at 5,000m whilst climb to 6,000m was of eight minutes.

When the Air Ministry awarded the first production contract for 600 examples of the new fighter on June 3, 1936 Sydney Camm was already one step ahead, with the production line taking shape and full scale production facilities and contracts already being worked out. On June 27 of that year the aircraft was officially named 'Hurricane'.

The Hurricane Mk. I

At this very delicate period of the Hurricane's life, the Merlin I began to show a certain amount of teething troubles and had to be substituted by the Merlin II in the first production batch. The



Hawker Hurricane Mk. I, P3731 "J", of Fighter Flight Malta based at Hal Far, Malta, August 1940. The aircraft was one of the first tropicalised machines to arrive in Malta from UK, and was flown by Plt Off "Jock" Barber. Note the unusual presentation of the fin flash

first Hurricane Mk. I (L1547) flew over a year later, on October 12, 1937 with Philip Lucas, Hawker's production chief test pilot, at the controls.

With the delivery of the new aircraft to service units, a series of outstanding successes were obtained. In January 1938, L1550, L1552 and L1553 arrived at Northolt to join N° 111 Squadron which was to embark on an extensive service evaluation of the new type. On February 10, Sqdn Ldr John Gillan, Commanding Officer of N° 111, took L1555 from Northolt to Edinburgh and back at an average ground speed of 645 km/h. This event, which was aided by a high tailwind on the return journey, received very wide publicity in the British press and fired the public's imagination.

N° 111 was given the task of taking the new fighter through its paces and bringing it to operational standard by testing it to the limits. This was no easy task

as the engine was still temperamental. But there were other problems which needed sorting out. Service pilots, still unused to the novelty of a retractable undercarriage, often landed with the wheels up! An audible warning in the cockpit had to be introduced as a signal in case the aircraft was lowered to ground level without the extension of the undercarriage — a measure which surely saved a number of red faces.

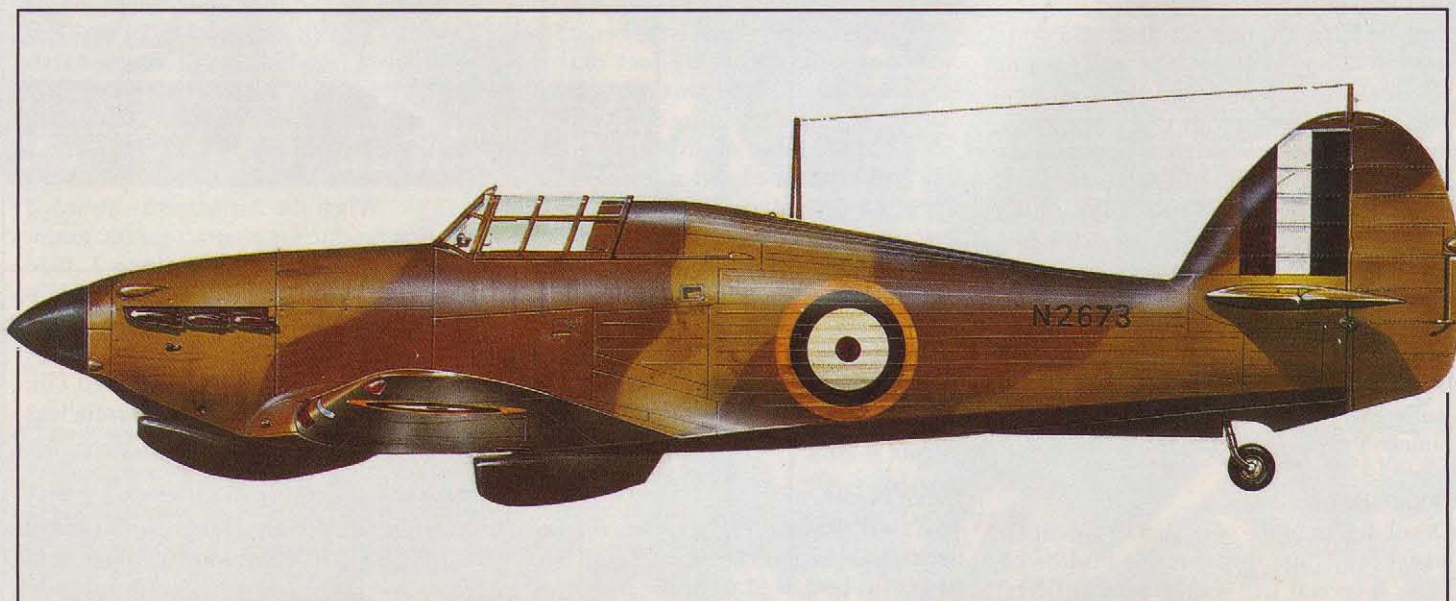
Stall recovery was considered adequate but to improve such characteristics, vertical tail area was increased and a ventral fairing added underneath the rear fuselage. To make up for the relative increase in weight the retraction gear of the tailwheel was eliminated, the fixed wheel in no way impairing the aircraft's performance.

New Engine

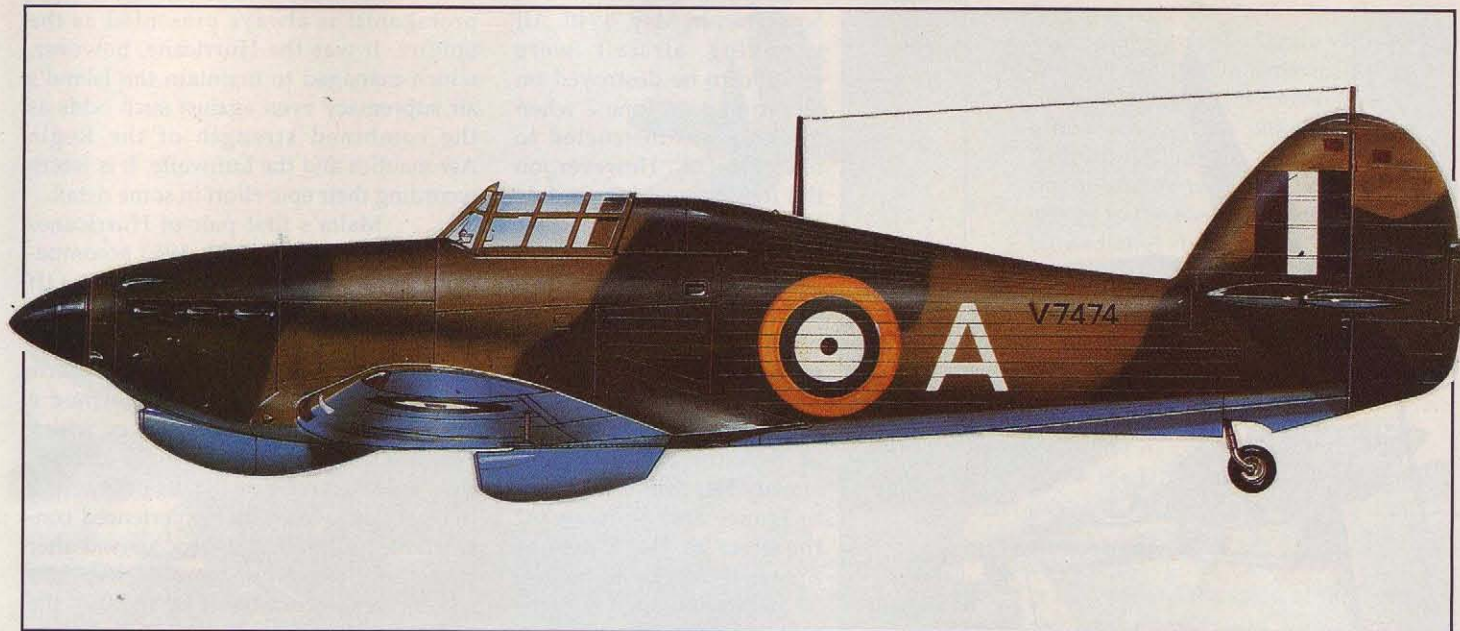
With the introduction of the Merlin III, the

Hurricane also received three-bladed Rotol or DeHavilland variable-pitch propellers. This modification coincided with the proposal of changing the wings. The fabric covered structures were to be replaced by new all-metal wings of the same external shape but of completely new design.

The fabric wings of the Hurricane were remnants of the old technology, unsuited to the high performance of the new fighter. The introduction of the new wing also entailed the reinforcement of the gun access panels of the wings which previously had the bad habit of parting company in flight! This new all-metal structure began to appear in service towards September of 1939. Further modifications included a redesign of the ventral radiator bath which was slightly enlarged and the addition of an external bullet-proof glass plane to the windscreen.



Hawker Hurricane Mk. I, N2673, of N° 418 Flight, flown by Flt Lt A.J. Trumble off HMS Argus on July 30, 1940 for Malta and based at Hal Far until becoming N° 261 Squadron on August 16. The aircraft presents a highly unusual black port and white starboard undersurfaces (divided along the fuselage centreline). Roundel proportions on the fuselage are also unusual



Hawker Hurricane Mk. I, V7474, "A" of N° 261 Squadron as seen at Luqa, early in 1941. The aircraft was flown by Flt Lt J.A.F. MacLachlan off HMS Argus for Malta on November 17, 1940. MacLachlan (DFC+) was to become one of Malta's "Aces" with eight victories

Technical Description

The Hurricane fuselage was built over four tubular steel longerons which were rolled to rectangular section at the joints. Over the rear fuselage were added wooden formers and stringers which were then fabric covered while the front section, which included the engine, was covered in light alloy sheeting. The area around the cockpit, especially the decking, was covered in plywood.

The wings originally consisted of a steel tubular construction with wooden ribs covered in fabric but this soon gave way to the four-spar all-metal wing. The centre section of the wing was built integrally with the fuselage giving immense strength to this vital part of the aircraft. Access to internal equipment, such as armament and tanks, was via removable metal panels. A cine-camera was sometimes fitted in a fairing on the leading edge of the starboard wing.

All moveable control surfaces were fabric-covered alloy structures, the ailerons were internally mass balanced. The only all-metal controls consisted of the spilt trailing edge flaps.

Hurricanes for Sale

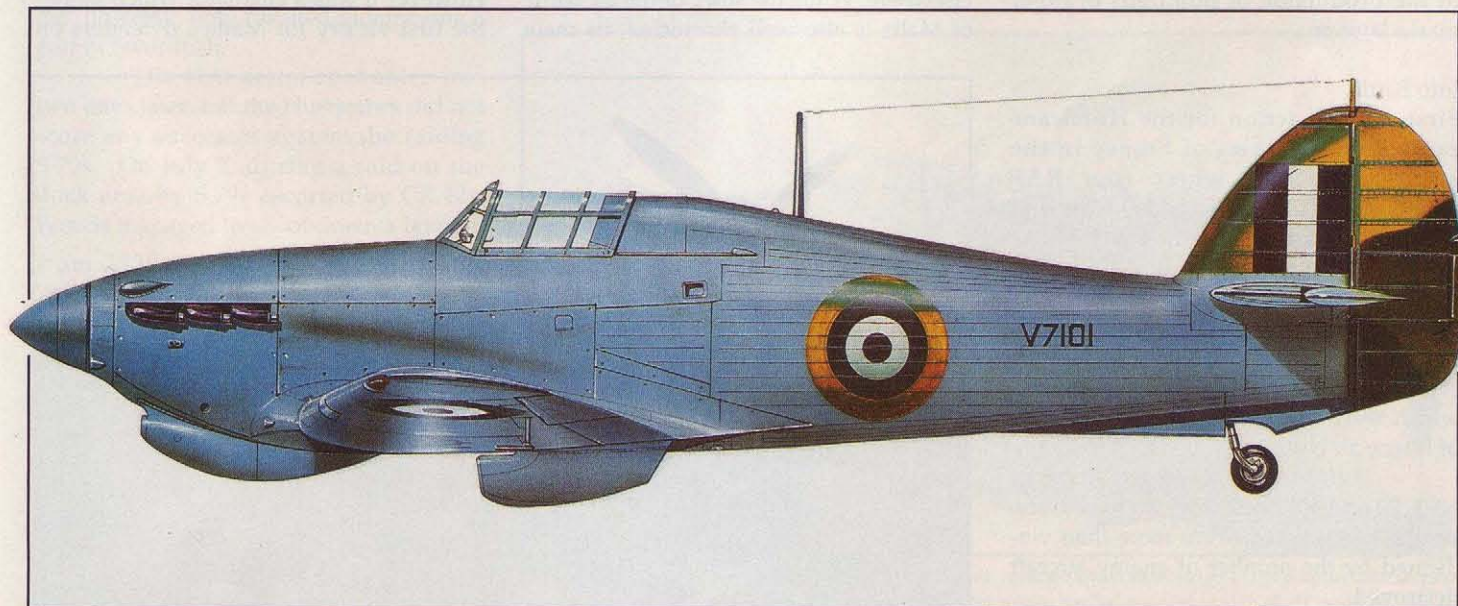
While Britain was at the peak of its RAF re-equipment programme, exports of the Hurricane could not be denied, especially to those countries with whom Hawker had long-lasting business associations. Yugoslavia was the first to benefit from Hurricane exports when an ex-RAF machine was sent over for evaluation resulting in a production order for 24 examples and the grant of a production license to PSFAZ Rogozarski for a further 100. No production, however, had been initiated by the time that German troops invaded the country and the 20-odd machines delivered were taken over by the Luftwaffe. At least one example was

passed on to the Regia Aeronautica. It is known that a Luftwaffe machine was converted to take a Daimler-Benz 601A but only limited flight testing was conducted.

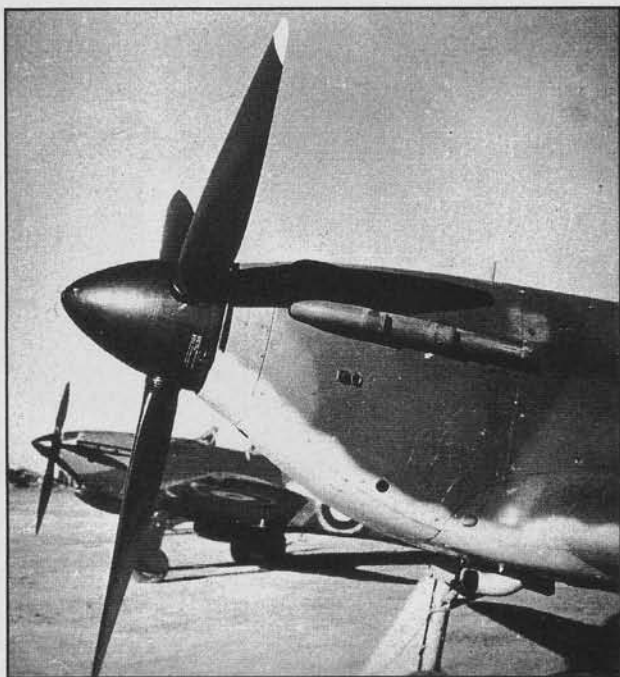
Towards the end of 1938 the South African Air Force received some ex-RAF Hurricanes in knocked-down form for assembly at Durban and were issued to N° 3 SAAF Squadron based at Pretoria. At the same time, another order came from Rumania but little is known of the fate of these aircraft after their delivery.

Another order came from Persia, only two of the 18 examples on order ever being delivered while Poland received one example just before the start of World War II, the balance of the order — nine — being taken over by the RAF.

One of the most important orders for the Hurricane came from Belgium, consisting of 20 examples built by Hawker. A license production of 80 examples by Avions Fairey came to an



Hawker Hurricane Mk. I, V7101, N° 69 Squadron, Luqa, Malta, 1941. This aircraft was a stripped-down machine for unarmed photo-reconnaissance sorties. Note the fin and rudder appear to have been cannibalised from another machine.



Line-up of N° 418 Flight at Hal Far, Malta. Of note is the aircraft in the foreground which is not fitted with the Vokes tropical air filter under the nose while the one in the background is N2673, subject of one of the colour profiles, visibly showing off its black and white underside scheme. Note the thin yellow outline to the port underwing roundel (Photo: R.J. Caruana Archives)

abrupt end after only two Hurricanes were built on Belgian soil. Though 2 Escadrille of the Belgian Air Force was equipped with the type they could do very little in the face of the invading forces and Luftwaffe supremacy.

But the biggest overseas license production was that awarded to the Canadian Car and Foundry Company. This was actually conceived as an insurance in case German bombing raids destroyed British production facilities, and by the time of the Battle of Britain, Hurricanes built across the Atlantic were arriving in the U.K. Canadian Mk. I production (redesignated Mk. X) totalled 160 examples, but this served as the first step in the production of hundreds of other marks later on.

Into Battle

First taste of action for the Hurricane came over the skies of France in the autumn of 1939, where four RAF Squadrons (N° 1, 73, 85 and 87) were sent to help the British Expeditionary Force. While results cannot be judged simply by discussing figures, these Hurricanes and their operations served to give RAF pilots close contact with the Luftwaffe and enable them to devise the fighting tactics which were to characterise the successes of future air battles.

Reinforcements in the shape of N° 3, 79 and 501 Squadrons arrived to top up the losses which were more than vindicated by the number of enemy aircraft destroyed.

The next phase to be fought in the so-called 'Phoney War' was the RAF's involvement in Norway by N° 46

Squadron in May, 1940. All surviving aircraft were ordered to be destroyed on the ground on June 7 when the unit was instructed to return to U.K. However, on the insistence of Sqdn Ldr K.B.B. Cross the aircraft embarked on HMS Glorious by flying onto the carrier. The fate of these Hurricanes was, however, sealed as the carrier went to a watery grave the following day.

By the time of the Battle of Britain, the RAF had already lost over 670 aircraft in France and Norway. At the start of the Battle of Britain — August 8, 1940 — N° 145 was credited with the first opening shots. On that day other Hurricane squadrons in action included N° 32, 43, 56, 86, 145, 151, 238, 501, 601 and 605. There were at the time 28 Hurricane squadrons compared to 19 equipped with the Spitfire. Thus it is obvious that it was the Hurricane which bore the brunt of the fighting at this stage.

On August 16, Flt Lt J.B. Nicholson of N° 249 Squadron earned the only Victoria Cross for RAF Fighter Command in an encounter with Bf.110s over Southampton. Towards the end of September the Battle of Britain had been won. The story is well known and has been chronicled several times. So we will just move on to record that with the appearance of the Hurricane Mk. II, the Mk. I was eventually relegated to night fighter duties for a short period of time until its total withdrawal from RAF service.

Air War in the Med.

If the Hurricane Mk. I was being retired in the U.K., these aircraft were badly needed elsewhere. While the story of the air battle of Malta is also well chronicled, its main

protagonist is always presented as the Spitfire. It was the Hurricane, however, which managed to maintain the Island's air supremacy even against such odds as the combined strength of the Regia Aeronautica and the Luftwaffe. It is worth recording their epic effort in some detail.

Malta's first pair of Hurricanes arrived early on June 21, 1940 accompanied by a Hudson flown by Flg Off G.V.W. Davies; another pair landed at 13.00, accompanied by three Blenheims. These aircraft were en-route to Alexandria from Medjez in Tunisia and formed a small part of the whole delivery which actually was to consist of eight aircraft. Two more arrived in the afternoon and the last pair, which had experienced considerable technical problems, arrived after sunset. Of these, two were damaged by adventures encountered in Tunisia; the Hurricane flown by Plt Off R.H. Barber had to be fitted with a make-shift tailskid when the original tailwheel was lost at Marignane.

The sight of eight Hurricanes Mk. I, alongside the aging Gloster Sea Gladiators which, since the beginning of hostilities on June 10, was too tempting for Maynard to let go of them. His intervention with Air Chief Marshal Sir Arthur Longmore, Air Officer Commander-in-Chief Middle East, to keep some of them on the Island as a relief to the worn-out Gladiators, was miraculously accepted. Five were detailed to stay on, consisting of Hurricanes P2614, 2623, 2629, 2645 and 2653 together with their pilots: Flg Off Taylor, Plt Off Barber, Plt Off A.G. McAdam, Plt Off Balmforth and Plt Off W.R.C. Sugden. The Hudson, crewed by Flg Off Davies and Flt Lt Cooper, was also kept at Malta and was to be used for a number of reconnaissance flights.

These aircraft boosted the island's morale and contributed towards alleviating the Gladiators' burden. However it was a Gladiator which scored the first victory for Malta's defenders on



A clean, ex-works tropicalised Hurricane Mk. I, V7826. Once these aircraft arrived at their destination, in this case North Africa or Malta, their external appearance became of secondary importance. Tropical weather also played havoc with the paintwork which deteriorated in a very short time (Photo: Hawker's)



Flt Sgt A.H. Deacon, author of this prang, is among those surveying the damage to Hurricane Mk. I, P3978 which was shot at by Bf.109s on April 11, 1941. Three other of his colleagues were not as lucky. Note the fractured canopy panel. Also of note is a Fairey Fulmar of N° 806 Squadron, Fleet Air Arm, which at the time shared Hal Far with 261 Squadron's Hurricanes (Photo: R.J. Caruana Archives)

June 22. June 28 marked the move of Fighter Flight Malta (as the unit became known) from Hal Far to Luqa, a newly constructed airfield with three tarmaced runways.

Ironically, the Hurricane which was intended to replace the biplane Gladiators had to have its baptism of fire over Malta facing another biplane, the Fiat CR.42. The agile Italian biplane was no easy target, however. On July 3, a Hurricane flown by Flg Off Waters chased and shot a Savoia Marchetti S.79 only to be hit by an escorting CR.42. Waters crash landed his aircraft, writing it off but without sustaining serious injury. The following day a formidable force of Fiat CR.42s from Comiso made their appearance on the Island in an effort to wipe out the small defensive force on the ground. Their spectacular low level strafing of Hal Far, however, only resulted in damaging a pair of Swordfish.

The next aerial encounter was two days later, but the Hurricanes did not score any successes against the raiding S.79s. On July 7, during a raid on the dock area by S.79s escorted by CR.42s, Woods managed to shoot down a bomber from 233^a Squadriglia. On July 10, Woods brought down another S.79 in flames whilst Hartley managed to seriously damage another which barely made it back to base.

On July 16, Flt Lt Burges and Flt Lt Keeble met a very strong force of CR.42s. Keeble, flying P2632, was hit and crashed to his death a hundred metres away from the wreckage of a CR.42 which Keeble had shot down a few moments before, claiming the life of its pilot, Tenente Mario Benedetti. This was the loss of Malta's first pilot. By this time the

Hurricanes were showing signs of weariness; no spares for these aircraft were available on the island and their condition deteriorated daily. It became imperative to send more Hurricanes to Malta.

Operation "Hurry"

The delivery of the first twelve Hurricanes for Malta was of great significance. It indicated a change of policy at the War Office after a half-hearted start; the Chiefs of Staff now considered the Island vital in the fight for supremacy of the Mediterranean, especially in cutting off Axis supplies from Europe, particularly southern Italy and Sicily to North Africa. OPERATION HURRY's importance was such that it was shrouded in great secrecy. Flt Lt A.J. Trumble recounts the events:

"On July 18 [1940] I was instructed to report at Abbotsinch in

Scotland from Duxford where I was stationed flying Defiants with N° 264 Squadron. On arrival I found that there were a number of RAF officers from other units in Fighter Command. The one common denominator was that we had all served in the Fleet Air Arm; we concluded that the mission was concerned with carrier operations.

"The next day 12 Hurricanes were delivered to us, they were painted in desert camouflage and had tropical filters and air cleaners. We surmised that our destination was east of Gibraltar. I had not flown the Hurricane before so I had a 20-minute familiarisation flight on July 20. On July 21 the aircraft were carried by lighter to the docks and craned aboard the small aircraft carrier Argus which was lying in dry-dock. On the next day the Argus sailed down the Clyde to Greenock where we met up with our escorts, still not knowing where we were heading for. On board we were given the designation of N° 418 Flight.

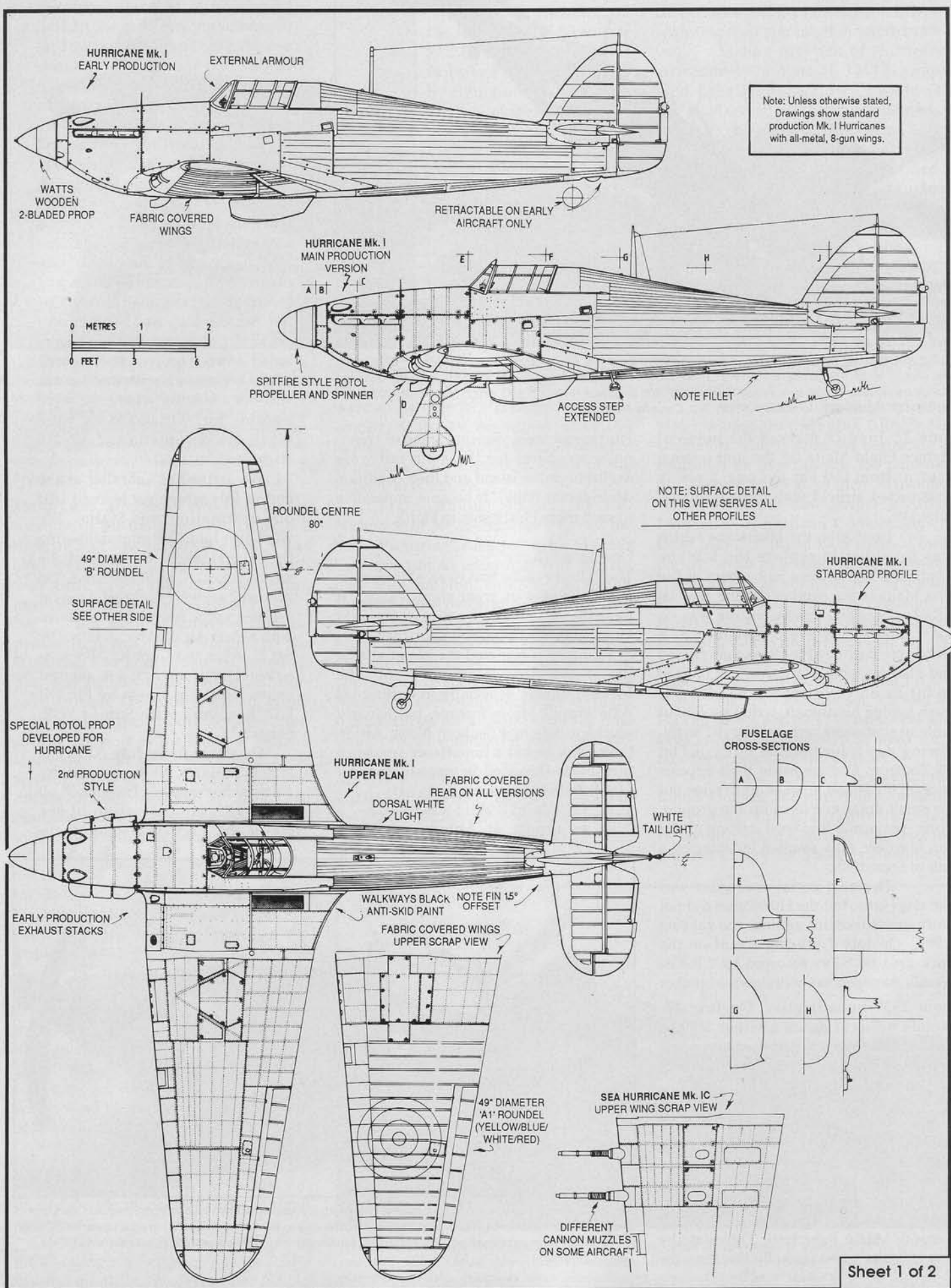
"We arrived at Gibraltar at the end of July where we learned that our destination was Malta. We were also told that after delivering the Hurricanes we would be returned to U.K. by Sunderland. On August 2 we were to fly off Argus at extreme range from Malta at dawn with a Fleet Air Arm Skua, flown by Sgt H. Ayre and Capt K.L. Ford, as navigational escort. [A second escort Skua was flown by Flg Off F.O. Bradbury with Sub Lt W.R. Nowell.]

"On the night of July 30 Argus left Gib, later to be joined by Admiral Somerville's Force H, in all a fantastic concentration of sea power and a certain amount of air-

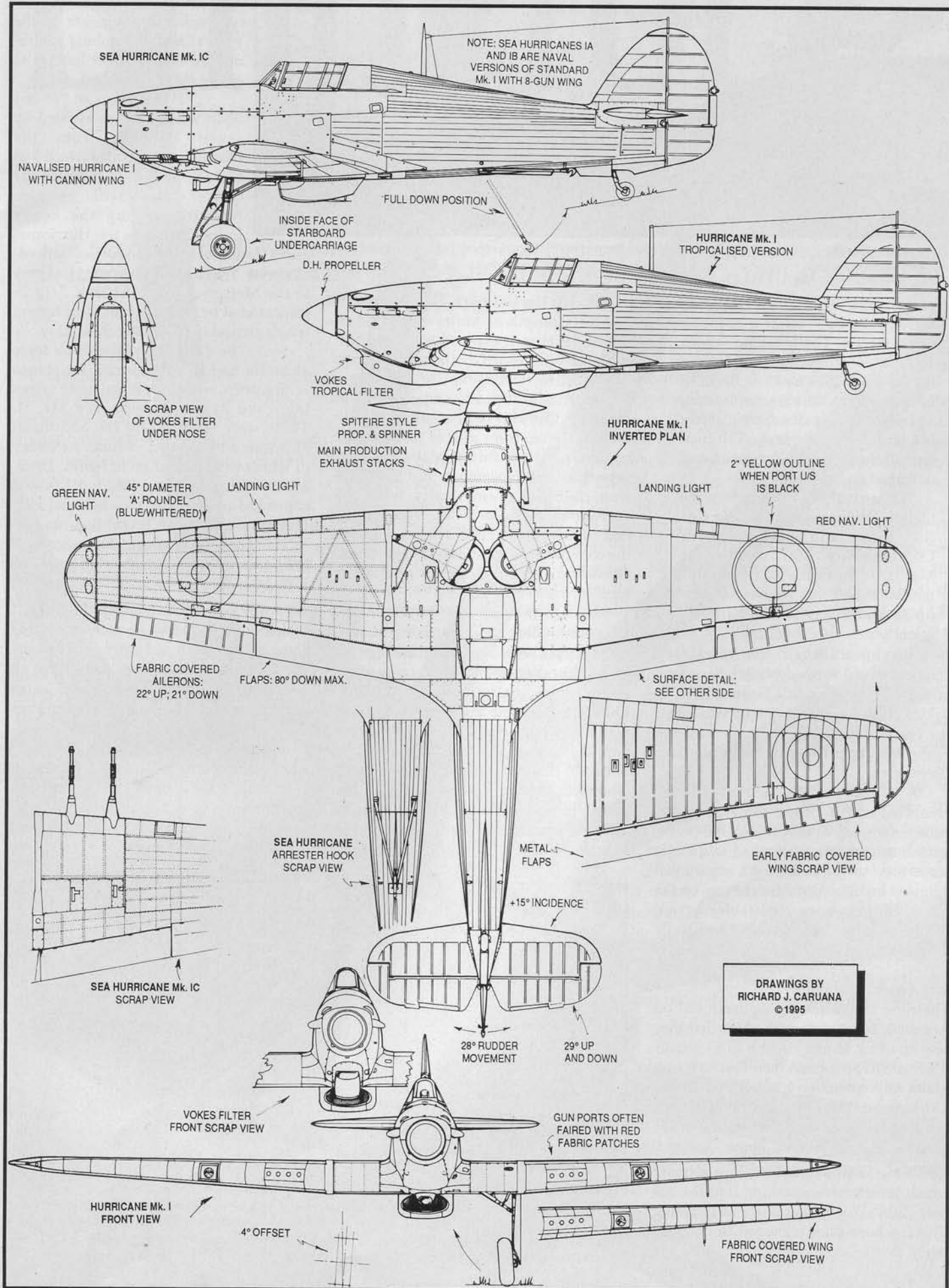


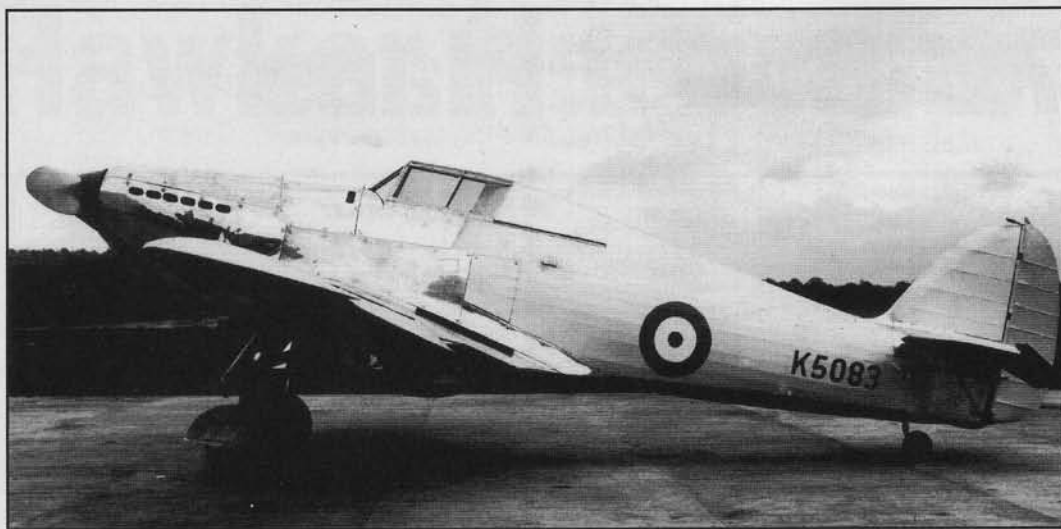
L1648 is a typical early production Hurricane Mk. I with constant speed two-bladed Watts propeller. Markings of the period included the introduction of the yellow outer ring to the "A" roundel (A1) in all six positions. The fin flash has not yet been introduced. This particular Hurricane eventually became instructional airframe 1474M (Photo: Hawker's)

Hawker Hurricane Mk. I



1:72 Scale Plans





The Hurricane prototype, K5083, in its original form just after its first flight. Later modifications included the enlargement of the fin area, introduction of a ventral strake, and new main undercarriage leg doors. The cockpit canopy framing was also revised (Photo: Hawker's)

sent to intercept the Ju.87s and Ju.88s, five of which fell to the combined action of the defending fighters and anti-aircraft gunners. During the following days attacks increased in ferocity, reaching their height on the 19th, although bombing continued until the carrier left Malta on the night of the 23rd.

Hurricanes of N° 261 Sqdn were at times assisted by seven Fulmars from the *Illustrious* (860 Sqdn) which had been flown to Malta when the carrier was still at sea. Notwithstanding the heavy Luftwaffe losses, the Hurricanes

and Gladiators remained unscathed. However, they were to become easy prey to the Messerschmitts Bf.109 of 7/Jg 26 commanded by Oblt Joachim Muncheberg which arrived in Sicily later in January.

The dwindling Hurricane force at Malta had to continue its resistance until April 3, when *Ark Royal* and *Furious* launched 24 of the improved Mk. II. These were followed by 160 additional Hurricanes by the end of June, a number of which were passed on to North Africa. Meanwhile Maynard handed Malta's command over to Air Vice Marshal H.P. Lloyd and on May 12, N° 261 Sqdn and N° 1430 Flight were amalgamated to form N° 185 Sqdn under the command of Sqdn Ldr P.W. Mould, DFC.

Thus the saga of the Hurricanes Mk. I which defended Malta at such great odds came to an end. It is known that at least one example was retained, stripped of all armament, armour plating and extra equipment and painted in a local concoction of PRU Blue. In this form, V7101 was handed over to N° 69 Squadron for photo reconnaissance missions. It is also believed that some other Hurricanes Mk. I might have been converted for night fighter duties, but no photographic evidence about these has ever come to light.

power since we included HMS *Ark Royal*. We flew off at a point 80 miles west of Gelite Island, about 430 miles from Malta. I flew Hurricane N2673 and the flight in formation took 2hrs 50mins landing at Luqa, all aircraft arriving safely but with very little fuel. The final aircraft flown by Sgt Robertson was damaged on landing.

"On arrival we were met by the Station Commander Luqa, Wg Cdr R.C. Jones, and the Air Officer Commanding, Malta, Air Cdre Maynard. After the welcome came the bombshell that we were to stay on as Malta was short of fighter pilots".

The Flight absorbed the remaining Gladiators and formed N° 261 Squadron under the command of Sqdn Ldr D.W. Balden on August 16. 'A Flight' was under the command of A.J. Trumble while 'B Flight' fell under the command of Flt Lt J. Greenhalgh.

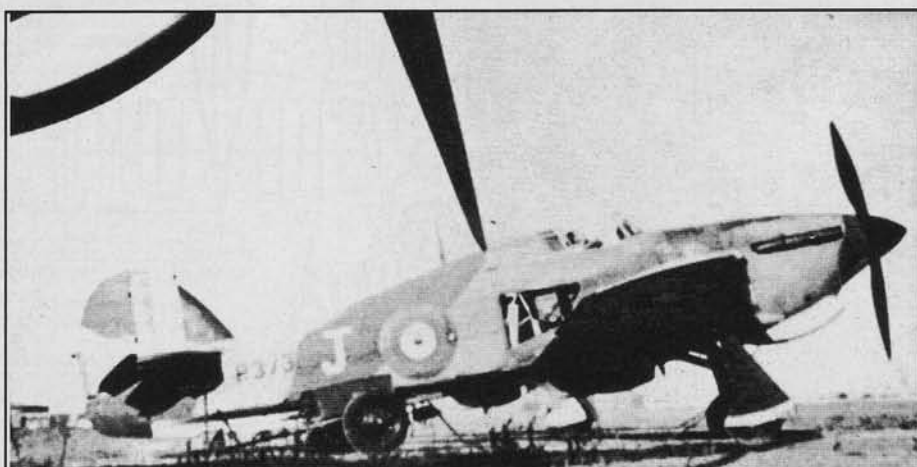
OPERATION WHITE, a second consignment of Hurricanes on August 17, ended in tragedy as only four of the twelve aircraft arrived; the others had to ditch at sea as they ran out of fuel. An inquiry that followed laid the blame for the loss on the pilots while a more creditable version would have been that someone had badly misjudged the Hurricane's true ferry range.

Into Action

The new arrivals were operational on August 3, but it was on the 13th that they saw any real action. Italian Ju.87 Stukas (Picchiarelli) performed their first attack on Malta on September 4 but it was on the 17th that the Hurricanes scored against this type. Barber took off with two other Hurricanes and pressed home an attack against a Ju.87 from 236^a Squadriglia which he later saw crashing into the sea near Filfla. Woods shot down an escorting CR.42, whose pilot managed to bale out safely.

At the end of the year the RAF's fighter strength at Malta consisted of about 16 Hurricanes of N° 261 Sqdn together with four Gladiator survivors. The desultory attacks by the Regia Aeronautica against the major targets of Luqa, Ta' Qali and Hal Far, together with the dock area, were unable to check the convoys that reinforced Malta between September and November. But this situation changed dramatically with the Luftwaffe's arrival in Sicily. Towards the end of December Fliegerkorps X under the command of General der Flieger Hans Geisler arrived in Sicily for operations against Malta.

On January 6, 1941 OPERATION EXCESS left Gibraltar under Force H with three supply ships for Greece and one for Malta. The convoy and escort came under heavy attack the following day. HMS *Illustrious* became the prime target and was hit several times until she entered Grand Harbour at 18.00 of January 10, with 126 dead and 91 of its crew badly wounded. After a lull of six days, all hell broke loose on January 16 when the Luftwaffe returned to finish *Illustrious* in Malta's dockyard. The Hurricanes were



Hurricane Mk. I P3731, subject of the colour art drawing, shown just after its arrival in Malta in use with Fighter Flight Malta from Hal Far, operating in conjunction with the surviving Sea Gladiators. This particular aircraft was flown to the Island with a makeshift tailskid fitted at Marignane where it had damaged its tailwheel in a landing accident during the ferry flight (Photo: R.J. Caruana Archives)

The Emperor's Wings

The Second World War holds for many a fascination bordering on the obsession! but one area that seems not to be covered in the modelling world at all well is the aircraft of Imperial Japan.

My fascination with Japanese aircraft is not a long one, a mere two years! but in this time I have enjoyed building many models of both Army and Navy types.

Divide into two distinctive services, the range of subjects to build is very diverse! On the whole aircraft of the IJAAF (Imperial Japanese Army Air Force) tend to be the more colourful, whilst aircraft of the IJNAF (Imperial Japanese Naval Airforce) tend to be more bland! However, there are exceptions to that statement in both services. In this, the series of articles on Japanese aircraft the above statement will be totally turned on it's head. The subject of this feature is the IJNAF Aichi D3A1 "VAL".

The VAL "was designed by Aichi in 1936 with some technical assistance from Heinkel to meet the IJN 11-shi specification for a two seat ship board bomber. Destined to become one of the most successful types employed within the IJN the Val gained the accolade of becoming the Axis aircraft which sank more tonnage of allied ships than any other type.

First entering production in December 1939, after a series

of changes to improve handling characteristics and to meet ever increasing demands by the IJN, it was found by it's crews to be an aircraft of excellent qualities. During 1940, carrier trials took place aboard the Akagi and Kaga, these also proved the Val to be of sound design. Prior to full scale conflict in the Pacific an unknown number of aircraft together with their crews gained much valuable experience in China and Indo-China but all these were land based.

During late 1940 and through the first half of 1941 the Val was progressively assigned to the Japanese carrier fleet. The 1st Koku Sentai comprising of the Akagi and the Kaga, the second Koku Sentai (Soryu and Hiryu) and the 5th Koku Sentai (Zuikaku and Shokaku). In December 1941 these three Koku Sentai combined to form the 1st Koku Kantai, it was this group that launched the devastating attack on Pearl Harbour, bring the U.S.A into WWII. In this attack a total of 135 Vals were launched into the air to provide a crucial bombing element of the mission, of the 135 only 15 were lost. The attack on Pearl Harbour needs no explanation

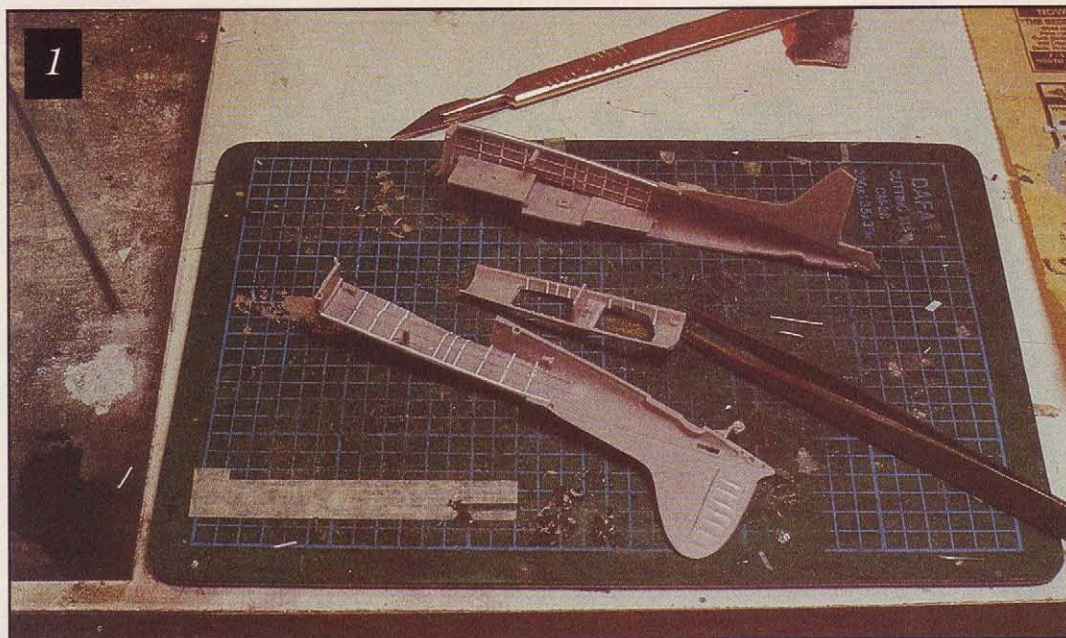
as it is well documented but in this attack the Val proved it's worth.

The Val's next major offensive against the allies was on February 19th 1942 when a total of 189 aircraft, 72 of which were Vals, attacked Port Darwin, Northern Australia. In the following months the aircraft was used to support ground forces in the assaults on Java and Burma, from here the carrier force moved Westward to attack targets in Ceylon. In one mission the British cruisers HMS Cornwall and Dorsetshire were attacked by 53 aircraft. In a devastating display of accuracy, both ships were sunk within 20 minutes with over 80% of the bombs hitting the target. A few days later the Japanese inflicted another blow to the RN when another attack sank the carrier HMS Hermes, the destroyer HMS Vampire and three support ships.

The fifth Sentai was to go into battle on May 7/8th 1942 against the US Navy in the battle of the Coral Sea joined by a new carrier, the Shoho. Attacks against the Japanese ships launched from the carriers Yorktown and Lexington sank the Shoho and severely

damaged the Shokaku, a counter attack was launched but for the first time the Japanese crews met real resistance and many were lost. A month after this bitter blow the IJN was to suffer losses at the Battle of Midway. The Akagi, Kaga, Soryu and Hiryu were all sunk. This defeat surely marked the beginning of the end for Japanese air superiority at sea. With the remaining carriers the IJN formed a third Koku Kantai, but with all it's most experienced crews lost at Midway, the effectiveness of the IJN's carrier borne aircraft including the Val began to wain. From this point on the Val was progressively assigned to land bases. In an attempt to improve on the D3 A1, Aichi produced an updated version, the D3 A2. Although an improvement on the earlier type, this version was by the time it entered service obsolete.

The subject of this article is the D3 A1 from the carrier Soryu. This particular aircraft was the number one aircraft of the 21st section and lead plane of the second wave attacking Pearl Harbour. The pilot was Lt Cmdr Egusa with, W.O Ishii as observer.



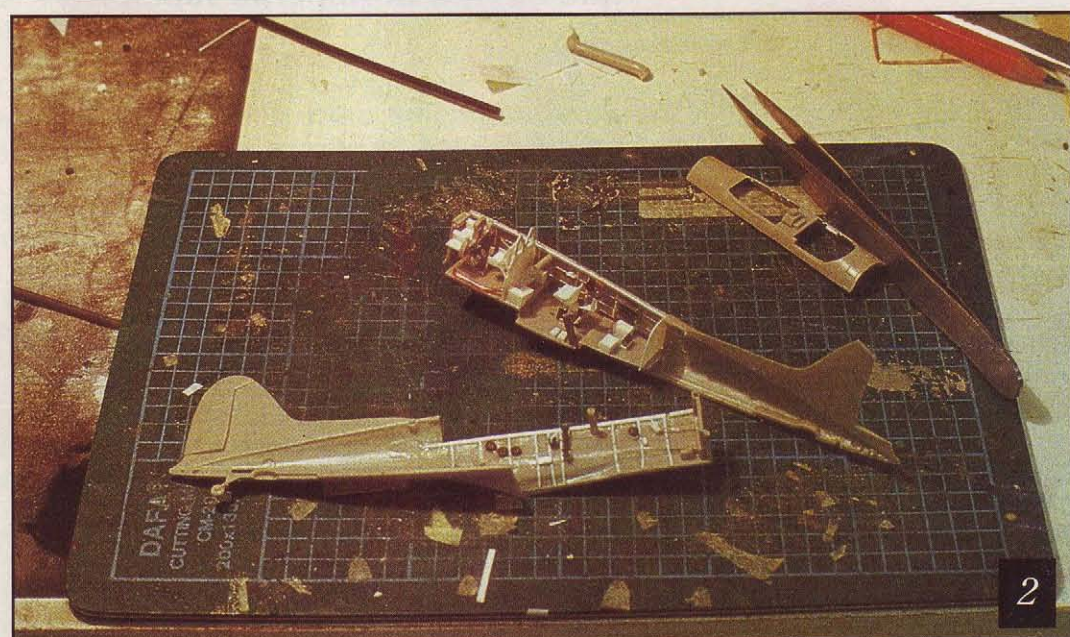
upper decking, the continuations must be carefully marked with a pencil to make sure that they are in the right place. Once this small job is finished then the cockpit floor can be added, I used the kit item, this gives you a sound base on which to build up your interior. All the items that can be seen (photo 2) were made from various pieces of card and stretched rod. The cockpit ventilation duct, the copper item, was made from a piece of 4mm electrical cable. Two new seats were added, fashioned from card. The pilots seat has

The Model

The kit I have chosen to use is the 1:72nd Fujimi D3A1. The overall impression upon opening the box was quite pleasing and once I had removed all the main components from the runners they were checked against the plans in the Bunrin Do. Famous Aircraft of the World book on the "Val" (FAOTW no 33). I found the kit on the whole to be quite accurate but not without it's share of minor errors, these will be dealt with as needed.

STAGE 1

The first stage was to decide what to do with the interior. It is very sparse and certainly would not do for me. Consulting all my reference



work I managed to build up a much more convincing interior. (a list of reference books appears at the end). I always start my interiors by adding

framework and longeruns (photo1) these are cut from 10 thou plastic card, when you are doing this remember that they carry on into the

a lever system to allow it to raise and lower, for the aircraft on the ground the seat must be at it's highest point. The radio/gunners seat is a tilt/pivot type and should be facing forward and level. Once these main items had been done all the ancillary items were added to give the area a much more realistic appearance. All that remained now was to detail the instrument panels before giving the interior a coat of Xtracolour x355 metallic blue. When this was dry I picked out the details using shades of silver and greys before applying a wash of burnt umber.

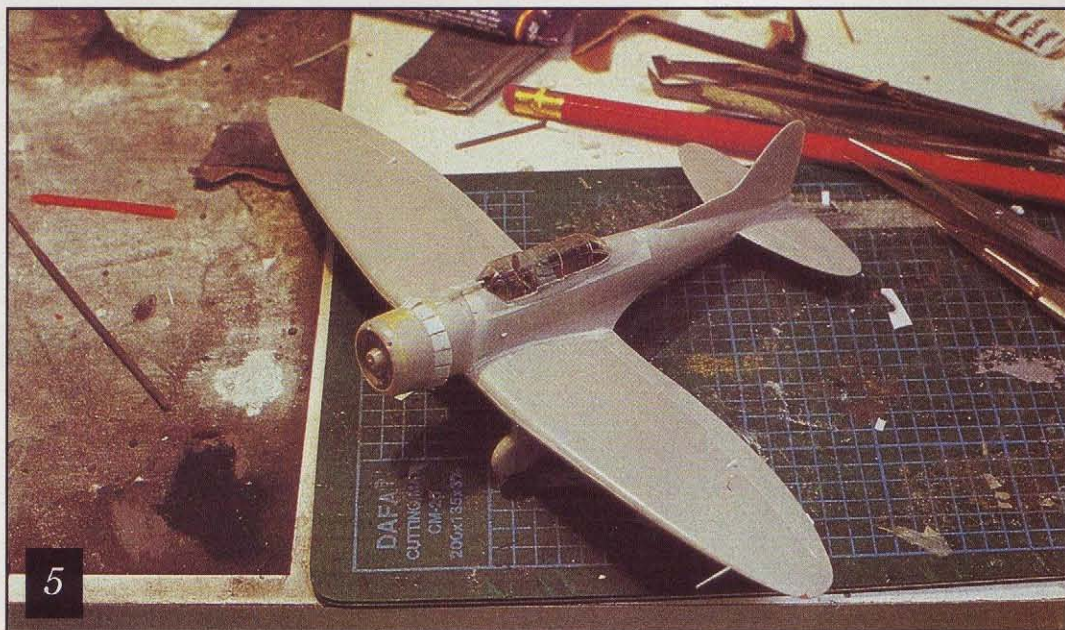
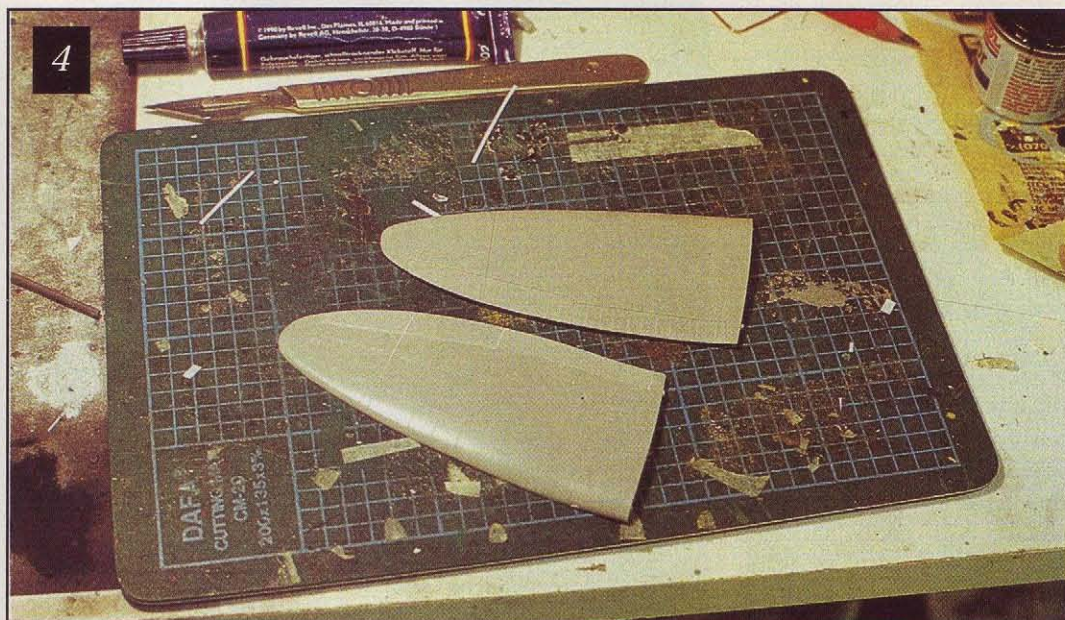
When the paint was thoroughly dry the fuselage



halves were glued together and the top decking added. This was a poor fit and needed a lot of filler (photo 3) with wet and dry, more helpings of filler and more rubbing down I eventually arrived at the next stage.

STAGE 2

My attention now turned to the wings. The main error here is Fujimi's rendering of the fabric covered control surfaces. Fujimi have shown very heavy renditions of ribs on these areas. Checking again with photo's and draw-



ings it is clearly evident that whilst they are cloth covered, the surface tension is very high (initially I thought that they were metal skinned). All the control surfaces on the wings, rudder and tail planes need to have this detailing removed before going any further (photo 4).

The wings now prepared were assembled and yet more filler came into use. Fujimi have an annoying habit of splitting components right down the middle of flaps, rather than following natural lines. The areas representing the navigation lights were removed and coloured, clear plastic was put in their place and sanded to shape. Aileron tab

and hinge control link were added to both ailerons and the sub assembly was put aside whilst I prepared for the next stage

STAGE 3

This stage of construction is a nightmare!! Before you start you will need the following.

1. A trip to the shop for an extra supply of filler
2. A packet of headache tablets.
3. Some cotton wool for your partner's ears so that they can't hear you swearing.

Well where shall I start ? On gluing parts 25, 34 and 35 together you will find that one half is smaller in diameter than the other, all that can be done here is patiently and methodically fill, sand down, check and refill until you have a satisfactory result. Part 43 can now be added and yes you will need your filler again. I strongly suggest that at this point you go and have a nice cuppa for worse is yet to come!! Returning to the instruction sheet do yourself a small favour and



assemble parts 32, 36, 37, 46 & wings to the fuselage first, the small amount of filling here will seem insignificant. Now is the time for tablets and cotton wool! Place, do not glue the cowling assembly on the fuselage and you will see very clearly what your next problem will be.

Fujimi have managed to produce a very noticable kink in the cowl to the port side, the Val does not have an off set engine to counter torque so this error has got to be corrected. With gentle sanding you will eventually straighten up the cowl, but this then leaves you with other problems. Now the cowl is straight you will find that the engine bay cooling flaps are not square to the fuselage and the exhaust ports are slightly in the wrong place....Time for another cuppa To correct this all the existing cooling flaps will have to be removed using a file to take the plastic down in a step parallel to the leading edge of the wings. Don't give up on your model as the end result will be worth the trouble. The two areas where the exhausts are meant to go are filled and holes drilled through the cowl just ahead of them for the new ports. The cooling flap vanes were from 10 thou card, curled slightly with the back of a knife handle, cut to the



7



8

desired sizes (photo 5). All of this additional work not only corrects the kit but also makes the finished model look a lot better. If you do

your preparation carefully the cowling can be glued to the fuselage without the need for filler.

STAGE 4

The end of the construction stage now in sight all that you will need to do is to follow the remaining stages on the instruction sheet (photo 6) I chose to replace the main wheels in the kit which are moulded integrally with the spats, but this was something that need not be done.

STAGE 5

I had decide at the begining of this project to display my model with the canopy open, so I did not bother to mask the kit canopy off. For all intents and purposes my kit item was just going to be used as a sheild to protect the cockpit interior. One

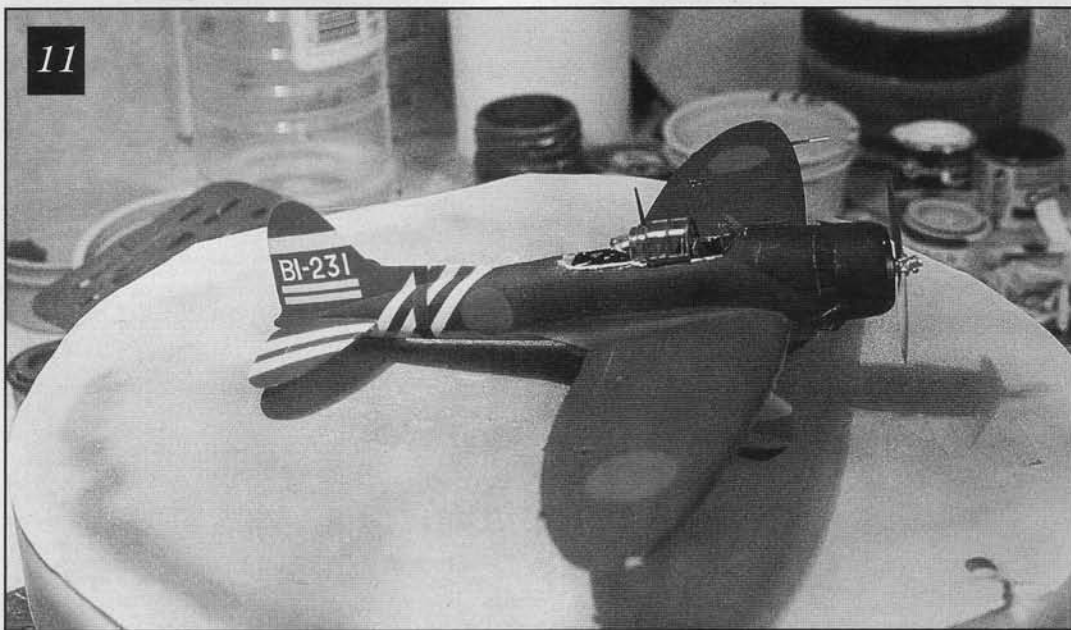


9

10



11



word of caution, if you intend to use the kit canopy it will need correcting, the large rear panels on the side have an extra frame line on them and this must be removed. Now I can get on with the part that I enjoy the most. My Val was given a coat of matt white in order to show up any imperfections, like me you will be keeping your fingers crossed that there are none! if the base coat is satisfactory and your Val needs no further work you can give your model a coat of X354 Navy grey and put aside to dry. The next step is to start adding the colour. Once all of the necessary grey areas around the tail have been masked the fin and the tailplane can be given a coat of gloss red (photo 7). At this

stage the aircraft is starting to look quite attractive. One thing I do dislike about painting a model is all the waiting for successive coats of paint to dry, but unfortunately

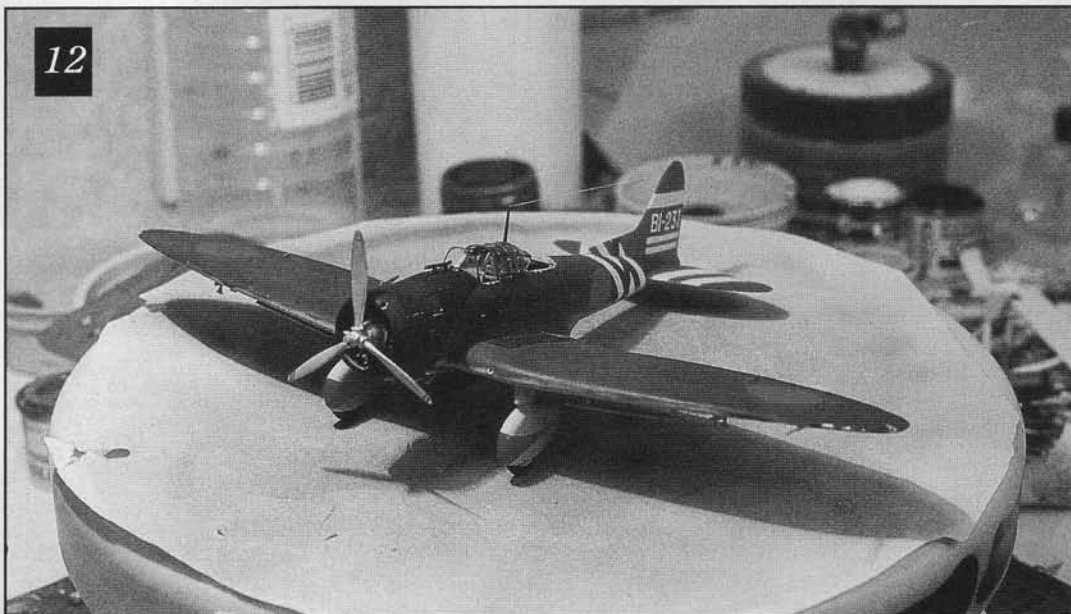
this is important. When the red has dried the fin and the tailplane can be masked off and the upper surfaces given a coat of X353 Navy green. This colour scheme is the one

which was applied just days before the attack on Pearl Harbour whilst at sea, so the green should be applied in variable densities to simulate this. Aircraft painted either on shore bases or at the factory generally have a more solid appearance. The only major paint job left now is the cowling. The kit painting guide was used to determine where to place the masking around the fuselage. For the cowl and anti-glare panel I decided to use a mix of 80% black and 20% navy blue, as plain black in this scale would look too harsh (photo 8). I left my model for a good 24 hours to allow the paint to dry thoroughly before finishing off all of the little paint jobs by brush (the engine bay, tyres, and tail wheel).

STAGE 6

As mentioned at the beginning of this article the decals come from the Aeromaster range. The sheet used is 72-057 TORA TORA TORA part 2. I must admit that when I first looked at the complex markings around the rear fuselage I was sceptical as to how the decals would fit. The first items applied are decals 26a and 26b, using the microscale system, and carefully matching the edges along the dorsal spine, when dry it was impossible to tell that these bands were not painted on.

12





At this point all of my scepticism flew out of the window! All that needed to be done now was to remove the overlap on the lower fuselage with a sharp blade before continuing with the rest of the decals. The only items which gave any real problem, were the red spat trims, but with patience even these adhered well (photos 9 and 10). The only items that I could find missing from the Aeromaster sheet were the numbers 31 that should have been on the front of the spats.

STAGE 7

The end was now in sight, all that needed to be done before the final coat of matt varnish was applied was to give the entire model a wash of burnt umber to simulate a bit of wear and tear. The final coat of varnish was applied and when dry, the leading edges of all surfaces were lightly buffed with a soft cloth. Exhaust stains were added along the scuff marks and the kit canopy

was removed. All that remained now to finish the model was to paint the airscrew (propellor), attach it to the engine, and add my replacement Falcon canopy (photos 11,12 and 13). At last the beast was finished.

CONCLUSION

I have stated that building this model was a nightmare, and believe me it is. In my own personal opinion the problems are caused by try-

ing to get more than one sub type from a basic set of mouldings. Fujimi also produce the D3A2 which differs in all the problem areas.

The finished model looks very attractive, but with all the work needed to correct the building problems its not one for the beginner. Unfortunately all your hard work will probably go unnoticed but you will gain a great degree of satisfaction secure in the knowledge that you have conquered Fujimi's D3A1 "Val"

TECHNICAL DATA

KIT : Fujimi D3A1.
series no F7

PAINTS : Xtracolour X353,
354,355,103,404 AND X123.
XDF Varnish.

DECALS : Aeromaster

REFERENCES :

Japanese aircraft of the
Pacific War. Rene J Francillon
Bunrin Do F.A.O.T.W No 33
Air International Dec 1987

Next Emperors Wings. The
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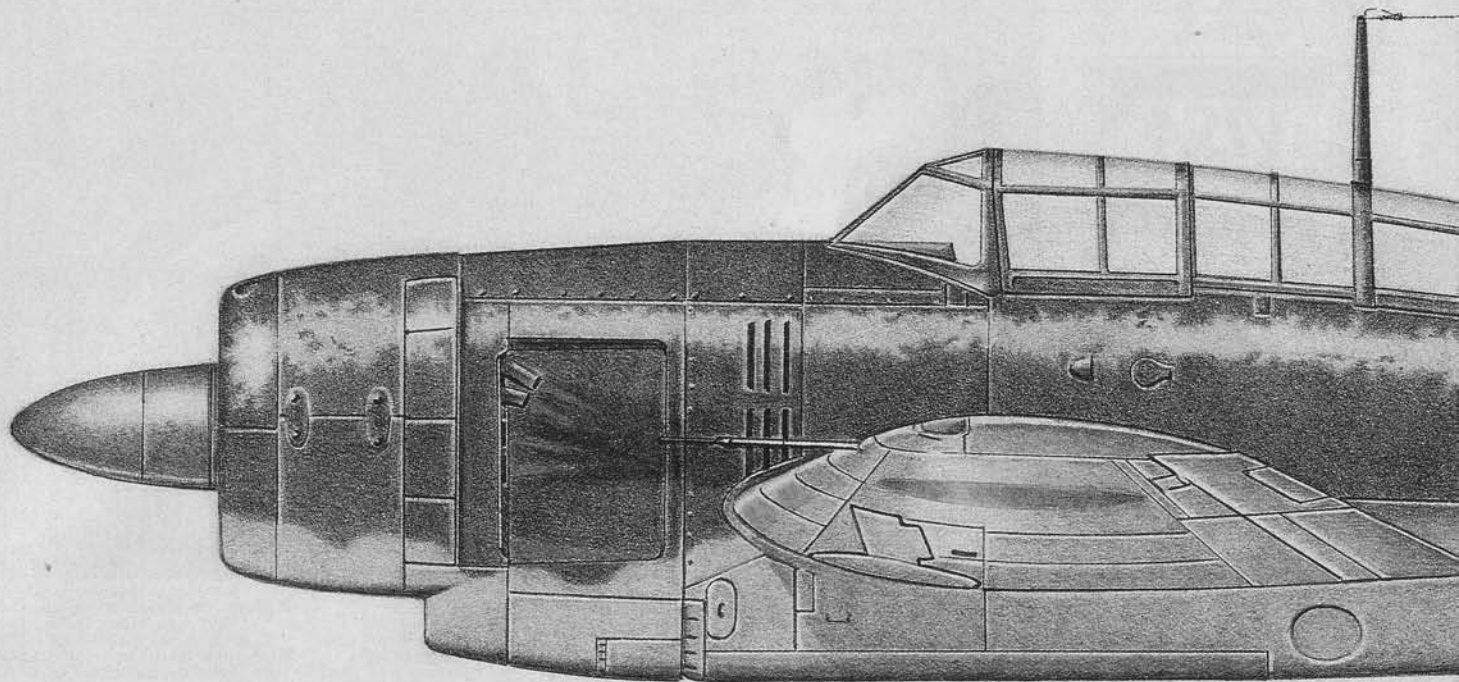
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Kamikaze!

Japan's Warriors of the Wind

*—The summer grasses
For many brave warriors
The aftermath of dreams*

On 15 August 1281, the great invasion fleet of the Emperor Kublai Khan, intent on expanding his Mongol empire still further, arrived off the south-west coast of Kyushu, Japan. Consisting of nearly 4,500 ships carrying 200,000 men, it was inconceivable that this formidable force could be repulsed solely by the efforts of men alone. The entire Japanese nation, led by the Emperor Kameyama, prayed to the founder of the Imperial house, the Sun-goddess, Amaterasu, for deliverance. That same evening a tremendous storm arose which smashed the armada to pieces and scattered the survivors of the Mongol horde piecemeal

along the coastline where they were crushed by the gleeful Japanese samurai warriors. Regarded quite literally as a wind from heaven, this fortuitous typhoon was immediately named the 'kamikaze' or 'divine wind' and has occupied a place of honour as a symbol of Japan's divine protection ever since.

663 years later, in 1944, Japanese troops were again locked in combat with another potential invader, this time from the other side of the Pacific ocean.

Heirs to the Samurai

Guided by the code of *Bushido* — the Way of the Warrior — the samurai was taught honour, courage, self-sacrifice, exemplary loyalty and reverence for the emperor, the ability to endure pain

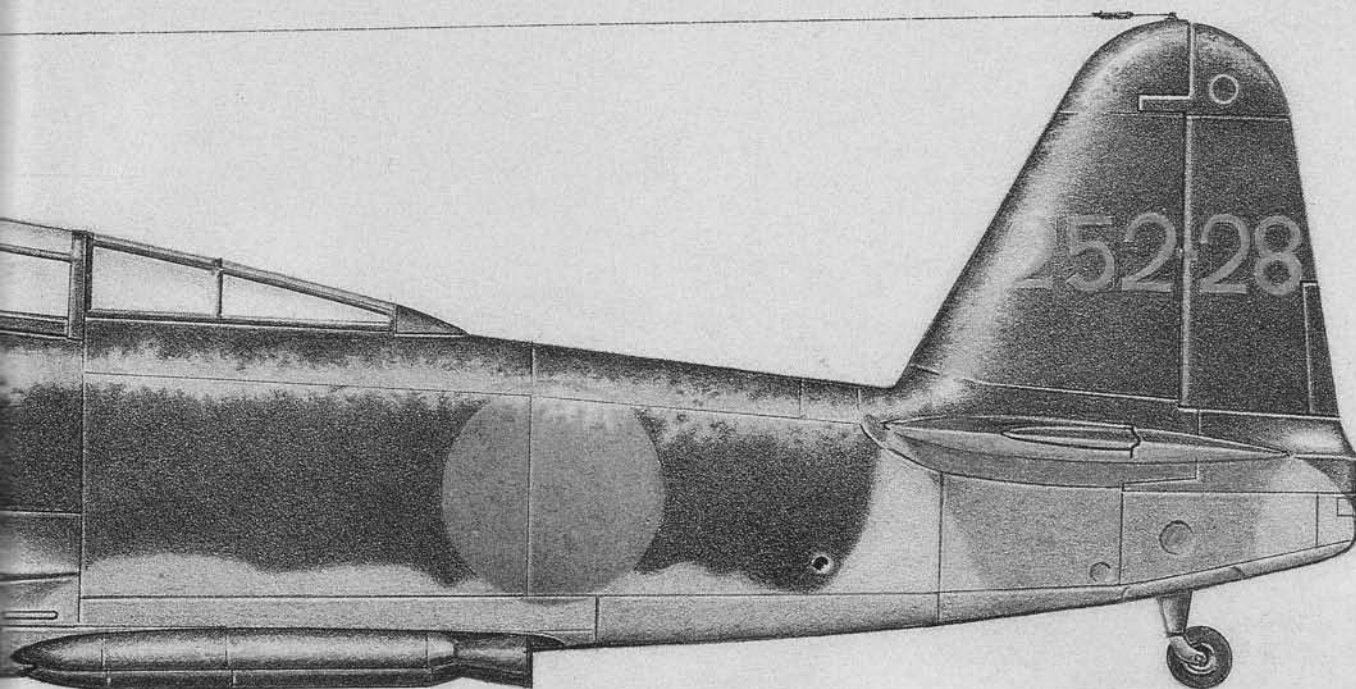
in silence and a contempt for death. Added to a belief in the divine origin of the Japanese people, by virtue of which they were destined to dominate the world — the *Hakko Ichiu* principle — it was only to be expected that these precepts should come to form a part of the national ideology. Stiffened also by the teachings of Zen Buddhism which regarded death as a mere stepping stone to enlightenment, a uniquely Japanese attitude arose which held that voluntary death was preferable to living in shame. The exaggerated sense of honour of the Japanese meant that the reasons for this were sometimes highly debatable, but the result was that there are eight Japanese terms for death, five of which denote that this was caused by an act of will by the

person concerned.

Subjected to a ferocious and brutal discipline, the Japanese soldier was expected to fight until he could fight no more — and then die with honour — he was expressly forbidden to surrender. Simply put, the duty of the Japanese soldiers, sailors and airmen was... to die hard. In the seventeenth century this was a workable philosophy, but the legacy of this ideal under conditions of modern warfare was the unnecessary loss of many experienced men and a reckless disregard for long term strategy.

First Sacrifices

From the beginning of the Pacific war, Japanese pilots had sometimes deliberately crashed into Allied ships or installations. At first these



Yokosuka D4Y4 *Suisei* (Judy), ostensibly wearing the tail code of the 252nd Kokutai, a fighter unit. Designed as a specialised suicide bomber in 1945, this version of the 'Comet' carried an 800 kg bomb and three auxiliary rockets under the fuselage to boost the speed in the final dive. The fin was enlarged, presumably to give better lateral control. Although there were probably general official guidelines on the camouflage of Japanese aircraft, the Japanese language is notoriously imprecise in the way it describes colours. As the bulk of the aircraft manufacturers were industrial conglomerates, they probably resourced paints from within their own organisations. Consequently, there were several shades of the main colours, each being the particular manufacture's interpretation of the official instructions. This machine is probably finished in a dark green close to FS 34062, with a slightly lighter version of the 'RAF Medium Sea Grey' undersides. Tail codes are in yellow, all other markings being standard for the period.

were probably carried out by wounded or otherwise crippled individuals prepared to sell their lives dearly. As the war progressed, it became ever more apparent that conventional tactics and weapons were not succeeding in blunting the Allied reconquest. By the early part of 1944 suicide attacks were becoming more frequent and one of the main topics of discussion amongst Japanese fliers. Impressed by the evident heroism of their comrades, the pilots also took note of the results achieved. They were well aware that their aircraft were no longer the invincible machines they had been at the outbreak of the war, and that replacements were simply not being built quickly enough to make up for the enormous losses they were suffering. Gradually, the thought that they were probably going to die anyway led some pilots to consider that they might as well make it count for something. To die in the purest self-sacrificing tradition of the

samurai would demonstrate their spiritual superiority over the 'cowardly Yankees'. This was not an official policy, but a spontaneous response by the men in the frontline units themselves.

First Mission

In June 1944 the Americans launched a series of devastating air raids against the small but strategically important Japanese island of Iwo Jima. Originally defended by over 100 assorted Japanese navy bombers and fighters, within three weeks the squadrons were down to but 8 Nakajima B6N *Tenzan* bombers and 9 Mitsubishi A6M fighters.

Considering the options open to them, the commanding officer, Captain Miura Kanzo,* took the logical, and totally unauthorised, next step. He ordered the chosen pilots of the remaining aircraft to find and attack the American task force, then some 500 miles south of the island, as a group. To achieve maximum effectiveness they were to *deliber-*

ately crash dive onto the enemy aircraft carriers. All the pilots knew that their chances of successfully carrying out an attack were slim at best, all Miura had done was to state the obvious and turn it into an order. Yet this this does not diminish the courage of the men who accepted such an order and set out unflinching.

However, war does not make life easy, even for heroes. The aircraft were intercepted by American carrier-based fighters well before they reached their targets and decimated, the four survivors returning to base unable to find the ships in the gathering gloom. The following day these four aircraft were destroyed on their airfield by American naval shell fire and so the first semi-official Imperial Japanese Naval Air Force suicide mission was never recognised – but the idea was gaining ground.

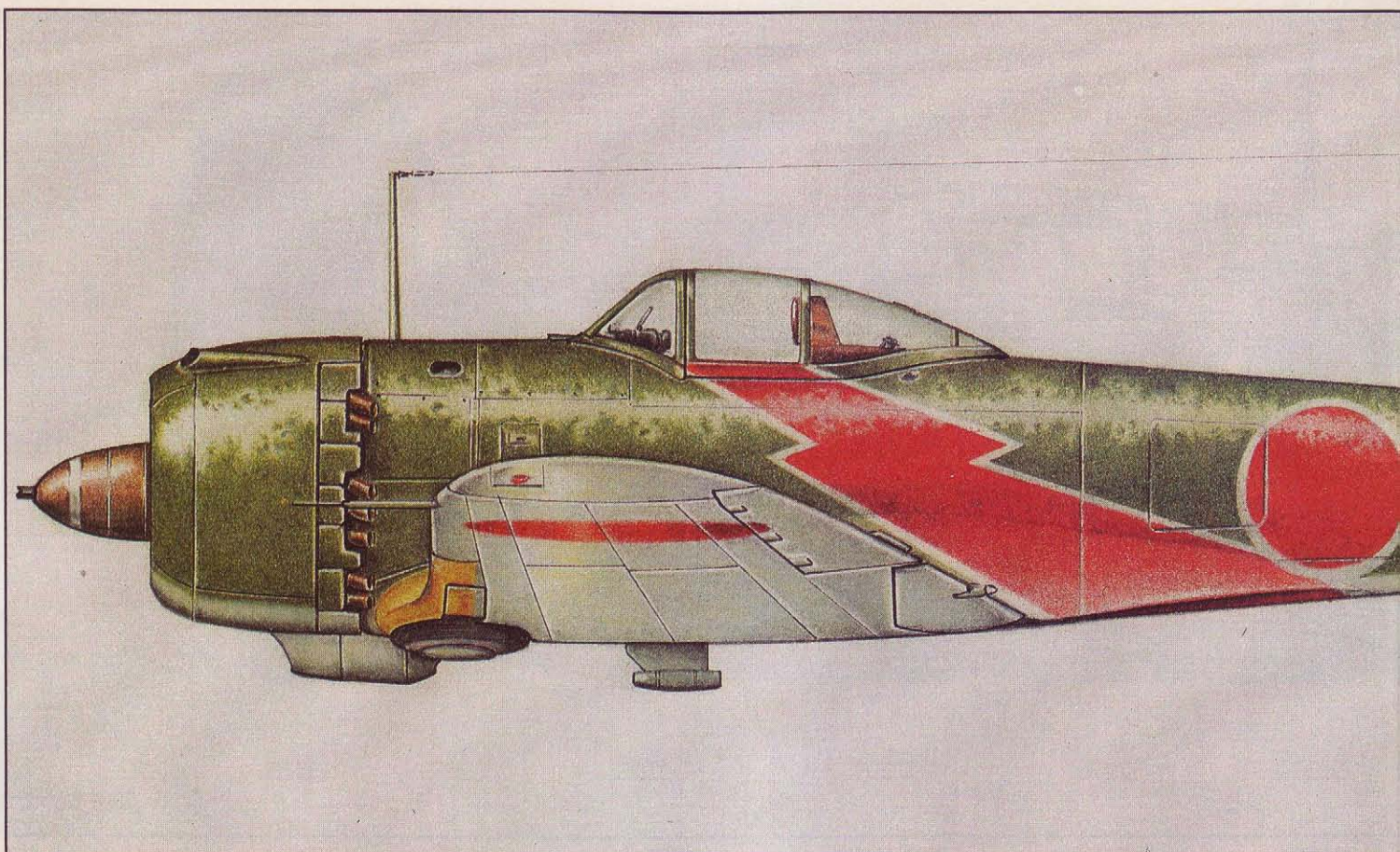
The Philippines

By October 1944, the Japanese were aware of an imminent

US attack on the Philippines. If the Americans regained control, then the Japanese would be forced back to their home islands. These islands were not only the last important bastion on the way to Japan, but also the last protection for shipping from the vital Dutch East Indies, from where most of Japan's war time oil supplies derived. With only primitive defences available to them, the Japanese merchant ships were easy targets for American submarines. By summer 1944 losses had been so great that drastic fuel rationing had been imposed, even on the armed forces. This severely limited the number of sorties that could be made by ships and aircraft, and reduced the amount of training to dangerous levels.

Arima and Onishi

The idea of sacrificing oneself in order to strike a more effective blow against the enemy was gaining acceptance even within the higher echelons of



Nakajima Ki 43 III-ko *Hayabusa* (Oscar) of an Imperial Japanese Army Air Force Shimbu-tai kamikaze unit, August 1945. In keeping with their colourful traditions, IJAAF suicide units seem to have used special markings to identify themselves. This machine is in a dull overall dark green, about FS 14050, enlivened with a bright red, white outlined fuselage flash. Undersides are in a colour not unlike RAF 'Sky'. It carries the usual dark brown propeller and orange-yellow wing leading edges. Fuselage stripe and rudder character (*tsu*) are in white.

the Japanese navy. On 15 October 1944, Rear Admiral Arima Masafumi, commander of the 26th *Koku-Sentai* (Air Flotilla) and against regulations, himself led an attack against the ships of American Task Group 38-4, then sailing off Luzon island. Since the opening of the Pacific war, aircraft carriers had been the key to naval battles and were therefore the prime targets. Arima's last dive was consequently aimed at the American flagship, the carrier USS *Franklin* (CV-13), causing severe damage.

Two days later, on 17 October 1944, Vice Admiral Onishi Takijiro, a capable pilot in his own right, took over command of the First Air Fleet, based in the Philippines. That same day, American forces landed on Suluan, at the mouth of Leyte Gulf. The long-planned Japanese defensive response, Operation SHO-1, was put into immediate effect. A complicated manoeuvring operation involving four separate naval elements totalling 63 ships, the plan was a vain attempt to

stave off the inevitable. Ranged against them were nearly 800 American vessels.

Against such insuperable odds, Onishi was faced with a stark choice. Conventional bombing attacks had proved fruitless, therefore the only way to maximise the effectiveness of his meagre forces was by properly organised suicide attack units. He presented this as an idea to the officers of the 201st *Kokutai* (Air Group). At last it was official. The 24 pilots of the 201st were briefed on the war situation and the proposed operation and asked for volunteers. To a man they did so. The man given the honour – and in Japanese eyes this *was* a great honour – of leading this first officially sanctioned *tai-atari* (body crashing) attack was to be *Chu-i* (Lt.) Seki Yukio.

*I
f I am asked
What is the heart of Japan,
I shall reply that it is
The fragrance of the wild cherry
tree
In the rising sun.*

Kamikaze!

Now that the decision had been taken, the parallel between the danger to Japan from the Mongols and the encroaching Americans was obvious and so a name for the new force was unanimously adopted – *Kamikaze*. The aircraft of the new special attack unit were to use different tactics whereby half would act as escorts for the actual bombers. Divided into four sections, the small sub-units were given poetic names in keeping with Japanese custom:

Yamasakura – wild cherry blossom

Yamato – the ancient name for Japan

Asahi – the rising sun

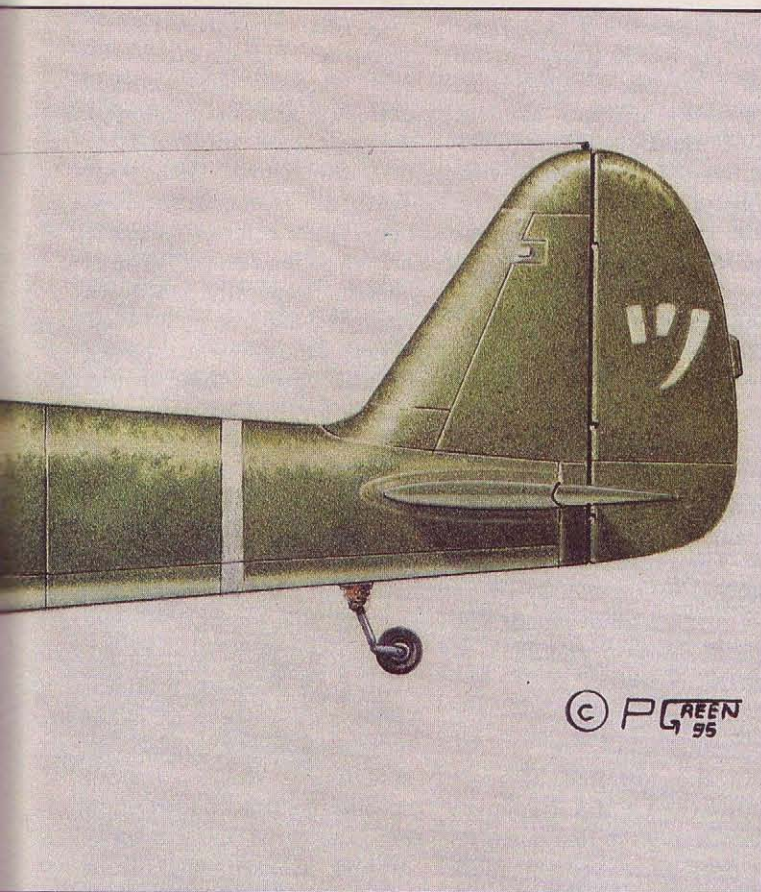
Shikishima – a poetic name for Japan

From then on events moved on with a rapid inevitability. The first attack was intended to have been carried out from Cebu by the Yamato unit, but their aircraft were all destroyed on the ground by American strafing. For four days, the inadequacies of Japanese technology were apparent when none of the

searching Japanese aircraft were able to find the American forces in the prevailing bad weather, while the Americans seemed to be able to strike at will. The difference was radar. However, on 25 October 1944, as naval engagements raged all around the Philippines and the pivotal Battle of Leyte Gulf finally got under way, the weather cleared sufficiently for the kamikaze pilots to keep their date with history.

Leyte

Shortly before dawn, six pilots went through a simple ceremony. They drank a toast in water to each other, the homeland and the Emperor, wrapped white hachi-maki around their foreheads and boarded their bomb-laden fighters. At sunrise the Yamato unit took off and headed east. At 07.35 they reported the discovery of Task Force 1 (77-4-1) consisting of four escort carriers and seven destroyers, north of Mindanao. At 07.40, achieving complete surprise, a Zero dived straight into the flight



deck of USS *Santee* (CVE-29), quickly followed by another on the USS *Suwanee* (CVE 27). The other four Japanese aircraft were all shot down before they could complete their dives. Despite appearances, both carriers were saved, although *Santee* was unable to launch flight operations and *Suwanee* was not back in action until that evening.

At 07.25 on 25 October, a small group of kamikaze aircraft of the Shikishima unit, led by Lt. Seki took off from Mabalacat. They were looking for the four carriers and six destroyers that made up Task Group 3 (77-4-3). Due to heavy rain, they did not locate the ships until 10.40.

At 10.50 the startled Americans saw a lone Zero flying just above the water, which struck the USS *Kitkun Bay* (CVE-71) a glancing blow on the island. Although the aircraft hit the sea, the bomb it carried caused great damage to the carrier. Two other Zeros were quickly shot down, but another, already trailing smoke from the intense American anti-aircraft fire, suddenly appeared over the USS *St. Lo* (CVE-63). With an explosion that shook the

whole ship, the kamikaze tore through the flight deck, spilling blazing fuel all over the hangars below. Riven by the simultaneous explosion of seven torpedoes in the hangar, the ship was soon a blazing hulk. At 11.25, *St. Lo* disappeared under the sea.

At 11.10 another group of aircraft appeared over the fleet, one was quickly shot down, but another flew headlong into the USS *Kalinin Bay* (CVE-68), causing severe damage. By 11.30 three more kamikazes had been shot down, but not before *Kalinin Bay* had been struck again on the stack. Eventually the fires were put out, and the Americans were able to take stock.

Clearly something had changed. The Americans had experienced suicide attacks before, but not with the same implacable ferocity they had just seen. It did not bode well for the future.

Assessing the Results

In their turn, the Japanese, too, were to assess what they had just been through. Despite the sacrifices and successes of the kamikazes, the gigantic sea battles fought that day had ended in utter

disaster for the Japanese navy. Not only had they been unable to destroy the American fleet, or even to delay the invasion of the Philippines, they had lost most of their ships, including the super-battleship, *Musashi*.

The official response to the defeat was to praise the kamikazes as a kind of divine vengeance. This enthusiasm had several consequences; it created the myth of the kamikazes and immediately increased the flow of volunteers, it prompted the formation of new kamikaze units and it swept away the last lingering reservations about suicide tactics.

In the beginning, Admiral Onishi, creator of the kamikaze corps, probably saw it as a temporary response to a very specific set of circumstances. But now the Japanese navy had effectively ceased to exist, and the only means available to fight back was by land and air power. The blind faith that the Japanese had in their moral and spiritual superiority over the Americans deluded them into thinking that the fearsome courage and will demonstrated by the kamikazes would somehow so demoralise the Americans that they would give up their intention to attack Japan. It was not to be.

New Units and Tactics

In the new and profoundly changed situation which the Japanese found themselves in, there was an urgent need to reorganise themselves. Falling behind their opponents at an accelerating rate, both in quantity and quality, how were the Japanese air commanders to make best use of their meagre resources? Considering the power of the enemy defences it was finally decided that the answer laid in using small groups of aircraft which would be able to slip through unobserved and thus stand a better chance of reaching their targets.

Consequently, the attack groups would consist of five aircraft each – three to attack, loaded with bombs, and two as escorts. This number was not rigidly fixed, but could

vary in response to circumstances. Bearing in mind the experience of 25 October, it was obvious that it could take several impacts to decisively damage a large ship. As for the escorts, two were regarded as the minimum; one above and one below the attack formation to draw off the enemy fighters. This type of formation had other advantages – on airfields that were under constant enemy surveillance and attack, it was easier to conceal and then assemble small numbers of aircraft. Not only this, but the level of pilot skill needed to hold a small formation together was much lower. Only the best pilots were to be selected as escorts, their vital task was to protect the bombers until they had begun their final dive. For this reason, many excellent pilots were not accepted as kamikazes, although they were expected to sacrifice themselves if there was no other way to complete their mission.

The collapse of the Japanese navy was due in part to the massive imbalance between the number of aircraft carriers and skilled pilots available to the opponents. Throughout the war, Japan fielded only 25 carriers, the Americans alone 125. Although the carriers remained primary targets, after the American landings in the Philippines, it was apparent to the Japanese commanders that the troop carrying transports and landing craft were equally valuable targets. From 27 October, these vessels were also subject to kamikaze attack.

However, despite the enthusiasm with which the Japanese navy adopted suicide attacks, many Japanese commanders, amongst them Admiral Onishi, were painfully aware that this was a measure of their desperation. "The fact that we have to resort to a thing like this shows how poor our strategy has been. This is certainly an unorthodox command".

Throughout the rest of November and December, as the Americans consolidated their hold on the Philippines, the Japanese polished their tactics. Attacking in smaller or

larger groups, ships of all sizes, ranging from the fleet carrier *Essex* (CV-9) to a small LST, felt the fury of the kamikazes. In one particular incident, on 29 November, a demonstration of peculiarly Japanese significance took place. In an echo of the tea ceremony just before battle in which the ancient samurai demonstrated his self control, a lone kamikaze dived onto the battleship USS *Maryland*. At the last moment he veered away, only to return to perform an incredible aerobatic exhibition above the dumbfounded Americans, before plunging into one of the 16-inch gun turrets.

By mid-January 1945, the kamikaze attacks were tailing away, primarily because there were no more aircraft left in the Philippines. However, by dint of much cannibalisation a small quantity of aircraft were repaired sufficiently for their self-destructive role. The last known attack took place on 13 January, when three ships were hit. By the 15th it was over. Japanese air power no longer existed in the Philippines.

Formosa

In early January, under orders from Tokyo, Admiral Onishi, with most of his surviving

pilots, was transferred to Formosa (Taiwan), with orders to form new kamikaze units there. The first of these was named the Niitaka Unit. On the morning of 21 January, while a heavy American air attack was taking place, the Niitaka Unit made for the ships of the US Third Fleet. Four aircraft only reached them and dived. All four hit their targets. Two hit the fleet carrier *Ticonderoga* (CV-14); another the light carrier, *Langley* (CVL-27) and the fourth, the destroyer *Maddox*. *Langley* was soon back on station, but the devastated *Ticonderoga* and *Maddox* were forced back to Ulithi Atoll for major repairs.

Iwo Jima

It was only to be expected that the landings on Iwo Jima, the most southerly of the Japanese Pacific islands, should be fiercely resisted. In anticipation of this, the Japanese high command had ordered the formation of a new naval Fifth Air Fleet on Kyushu. An integral component was a kamikaze unit, known as *Mitate No.2*, equipped with various types of aircraft. Divided into five groups with 32 aircraft, the unit made its first sortie against the American ship-

ping gathered off Iwo Jima. Arriving late in the afternoon and achieving complete surprise, the carriers *Saratoga* (CV-3) and *Bismarck Sea* (CVE-95) were both struck twice, *Lunga Point* (CVE-94) once. Two other smaller vessels were less seriously damaged. *Bismarck Sea* capsized and sank two hours later, *Saratoga* was out of action for over three months. No other attacks took place off Iwo Jima as the Japanese High Command had decided to conserve their forces for the anticipated American strike at the home islands. By 16 March 1945 the bloody struggle for Iwo Jima ended. The island was finally in American hands.

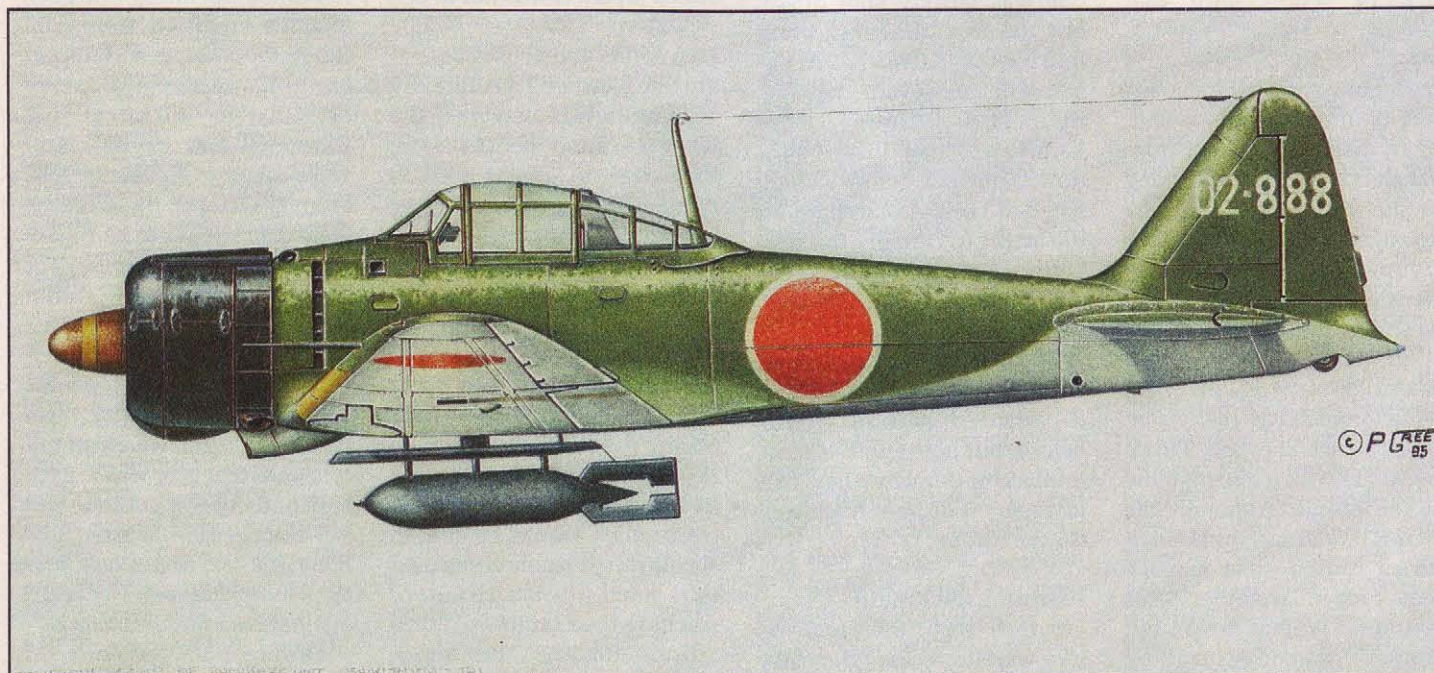
Reorganisation

As the terminal struggle approached, the Japanese navy decided to reorganise its air fleets to make them more effective. It was also apparent that there was no other way that they could succeed except by adopting kamikaze tactics. Consequently, on 1 March 1945, the Tenth Air Fleet came into being, comprising the 11th, 12th and 13th *Kokutai*. In total the Japanese navy had some 2100 aircraft scattered throughout Formosa and the home islands.

Not long afterwards, a sober assessment of the forces available forced yet another change in the organisation of the kamikaze units. Under this, the Third, Fifth And Tenth air fleets were combined into a single armada known as the *Kikusui Forces***. Based generally around Kanoya, the navy trawled every aircraft and partly trained pilot they could muster for this unit, the intention being to use experienced pilots to escort the less well-trained to the targets, leaving them to make their final dives and returning back to base to repeat the exercise.

The Army gets in on the act

Without a maritime tradition of her own to speak of, Japan had been forced to graft on an essentially Western, more specifically, British, institution onto the native Eastern background. Consequently, from the very beginning there had been tensions between the more traditional Japanese army and the new navy. This inter-service was rivalry was of a far more fundamental nature than that found in Britain or America, as it encapsulated the collision between cultures, not just technologies. As a result, and as a side-effect of the peculiar



Mitsubishi A6M2 Model 21 *Reisen*/Zero of the Shikishima-tai kamikaze unit of the 201st *Kokutai*. Possibly flown by Lt. Seki Yukio, this machine, armed with a 500 lb bomb, took part in the first successful kamikaze attack of the war on 25 October 1944 off Leyte in the Philippines when the escort carrier USS *St. Lo* was sunk. Upper surfaces are finished in an overall dark green, probably applied in the field over the standard light blue-grey (close to RAF Medium Sea Grey), first used by Mitsubishi as an overall protective paint. The engine cowling appears to be the standard blue-black, while the spinner was possibly brown with a thin white ring. The orange-yellow wing leading edges and hinomaru in six positions are completely standard. Tail code 02-888 is white.

pre-World War II Japanese constitution, the two forces spent almost as much energy fighting one another as external enemies.

Forced together by the desperate war situation, the army generals were well aware of the kamikaze principle. Many Japanese soldiers had made suicidal banzai charges or otherwise deliberately sacrificed themselves, but the army air force had used strictly conventional tactics. Envious of the honours being gained by the navy pilots, in March 1945 the army air force finally began forming their own suicide squadrons. Known as *Tokubetsu* (Special) or *Shimbu-tai* (Body crashing) Units, the army never found as many volunteers for this duty as the navy and finally resorted to simply assigning men to the units. This was a direct violation of the fundamental principle of the kamikaze corps. Although discipline was such that so far as is known no-one ever directly refused the mission, many men were drunk when they made their final dive.

Okinawa

On 26 March 1945, the Americans began landing on Okinawa. On 31 March the first kamikaze attack severely damaged the flagship, the heavy cruiser *Indianapolis*. From then on a steady trickle of small numbers of kamikazes kept the Americans on edge, but it was not the expected counter-offensive. That began on the morning of 6 April when 355 aircraft, in two waves, took off from the fields on Japan hoping to overwhelm the Americans by sheer weight of numbers. The first wave consisted of 195 navy machines, including 8 bombers carrying the special *Ohka* rocket-powered suicide aircraft, while the remaining aircraft were from the army's special attack units.

By nightfall, three ships had been sunk and another 22 damaged to a greater or lesser degree. The Japanese losses had been made good by 12 April when another 350 aircraft were launched into the

assault. At the end of the day only a solitary destroyer had been sunk, but another 29, including two carriers (*Enterprise* and *Essex*) and four battleships had been damaged. Despite retaliatory American attacks on the Kyushu airfields on 15 and 16 April, the kamikazes were not stopped. That same day 155 aircraft reached the anchorages off Okinawa and severely damaged the carrier *Intrepid* (CV-11). Two other ships were sunk and another 8 damaged. Small scale attacks continued over the next ten days as the Kikusui Forces regrouped. Late on 27 April another assault by 115 machines left two more ships sunk and others burning. Daily the relentless attacks continued. On 4 May, the escort carrier *Sangamon* (CVE-26) was lost along with several of the warning picket destroyers.

Throughout the Okinawan campaign, a staggering number of Japanese air attacks, mostly of the suicide kind, assailed the Americans. They had been joined by the British Pacific Fleet, whose carriers also made tempting targets. There was a major difference, however, between the British and US carriers. The armoured decks of the British ships meant that even though struck full square by kamikazes, both *Victorious* and *Formidable* shrugged off the blows and were back in action within a matter of hours. The less fortunate US fleet carrier, *Bunker Hill* (CV-17), with her wooden deck, lost 400 men killed and was completely devastated.

The unrelenting ferocity of the Japanese attacks was beginning to effect American morale. By the end of May several hundred vessels had been either sunk or forced to withdraw and the constant nervous strain was beginning to tell on the survivors. Despite enormous losses, in every attack, one or two kamikazes always got through.

On the Japanese side also, things were beginning to crack. The first, highly motivated suicide volunteers had

long gone, and there was now increasing resistance to the idea. Not only that, but the shortage of aircraft was beginning to make itself felt.

Epilogue on Okinawa

Throughout June, as the Japanese 32nd Army was dying on Okinawa, small groups of kamikazes continued to harass the Americans. On 5 June, early morning attacks seriously damaged four ships, including the battleship *Mississippi*. Then almost without warning, an incredibly violent typhoon struck the fleet. This real 'kamikaze' caused such severe damage to the American fleet that three battleships, four carriers, three cruisers, 13 destroyers and numerous other vessels were forced to pull back, most to the United States.

Admiral Ugaki, commander of the Kikusui Force, quickly learnt of this and sent small parties of aircraft add to the destruction. On 21 June, the day Okinawa finally fell, a landing ship was sunk by a lone kamikaze.

With the need to conserve aircraft for the expected last battle, July saw only small Japanese raids at infrequent intervals, intended to warn the enemy of the price he could expect to pay for an attack on the Japanese homeland. On 19 July the destroyer *Thatcher* had to be abandoned. Finally, on 28 July 1945, a solitary kamikaze struck the destroyer *Callaghan* which went down soon after. It was the last ship to be sunk by a suicide attack in the Pacific war.

The Reckoning

Several hundred American and Allied ships of all types were sunk or damaged as a direct result of kamikaze attacks, 38 being sunk and 368 being damaged beyond repair off Okinawa alone. On and near Okinawa 20,195 Americans died, while 55,162 were wounded. 130,000 Japanese, including 40,000 civilians also died there. At least 2,630 Japanese navy pilots and 1,985 from the army deliberately sacrificed their

lives. The Americans lost 763 aircraft.

Both Admirals Onishi and Ugaki joined their men in death. Ugaki crashed to his somewhere near Okinawa on 15 August 1945, the same day that Onishi committed *seppuku* at his home. Both left letters of appreciation for the sacrifices of their men, and an exhortation to young Japanese to strive for reconstruction and peace.

Believing that their death in a pure spirit could weigh the balance against the overwhelming American technological superiority the kamikazes died willingly. Each day a list would be posted with the names of those selected for the mission. In every case, the reaction of the chosen man was the same: he would stiffen, turn pale and walk away in silence; a short while later he would return, acting quite normally. 'It was as if the moment of death was not the impact on an American ship, but the icy second of recognising his own name'.

The men of the Imperial Japanese Naval Air Force did not change the final outcome of the war. Given their task of preventing or dissuading the Allies from mounting an invasion of Japan, it could be argued that despite their dreadful losses, the kamikazes succeeded in their duty, and saved the country from a bloody invasion, but in so doing delivered it into an even more terrible fate when two solitary aircraft over Hiroshima and Nagasaki unleashed a far more destructive form of warfare. And yet; the *Hakko Ichiu* principle....

* Names given here follow the Japanese convention of family name first.

** Kikusui means 'floating chrysanthemum'. A symbol of spiritual purity, a floating half-chrysanthemum represented not only the moral status of the naval suicide volunteers, but also their air/sea nature. The full chrysanthemum is the personal symbol of the Emperor of Japan.

Modelling Bookshelf

NEW TITLE FROM MBI



The most recent edition from the Czech publishing company of MBI is a new book on the Messerschmitt Me262.

In the standard MBI A4 sized format, the book has a beautiful laminated cover and contains 60 pages. Inside, the whole range of Messerschmitt Me262 is covered from the prototypes, through the two-seaters and even the post war use of the type by the Czech's. The text is in both English and Czech, so you have a good read on your hands which is a change from just looking at the pictures!

There are numerous scale plans and drawings, coupled with black and white WWII vintage pictures

and full colour coverage of the interior of the single and twin seat versions currently on show in the Czech republic. There is some beautiful full colour art work and a nice colour representation of the rear cockpit of an Me262B-1a/U1 nightfighter.

I have another, all Czech text, version of this book which was out about a year ago. If you have this version, do not be fooled, this is a new and expanded version, so they both deserve space on your book shelf.

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NEW ITALIAN PUBLICATION
Books looking at Italian aircraft are not what you would call all that common. However La Bancarella Aeronautica publications have come to your aid with the release of the first in a series of books dealing with exactly that topic.

The first title in this series is the FIAT CR-42 "Falco". The book is A4 format with a laminated full colour

cover, which folds out both back and front to expose some excellent full colour artwork of various CR-42, plus a scrap view of the cockpit layout and a few photo's of the old REVELL 1/72nd and ARTIPLAST 1/50th scale models.

The book is a real mine of information, although you should note that the text is in both Italian and English. The earlier CR33, 40, & 41 variants are covered and then we move into the body of the text which looks at every facet of the CR-42 and includes numerous Black & White photo's. In the middle of the book there are a full set of 1/48th scale plans and these are followed by a 1/48th scale side view cutaway and a full set of 1/72nd scale plans.

The technical section on the last 18 pages is superb, with every detail of the aircraft covered, including excellent clear interior photo's. The rare two-seat CR-42 converted by Agusta are very interesting, I wonder how long before we see a model of that? The final few pages deal with the type's operation with other countries Air Forces and all in all this is an excellent book.

I cannot fault this first publication and I would advise all of you with an interest in Italian aircraft to purchase a copy as soon as possible, you will not be

disappointed.

My thanks to the publisher for letting us see this new title. They have informed us that the next title will be the Macchi MC202 (Due Sept 1995), followed by the Savoia-Marchetti SM-79, FIAT G-50 and Macchi Mc-200.

At present no-one is importing this book (as far as I know) and you can therefore obtain a copy direct from



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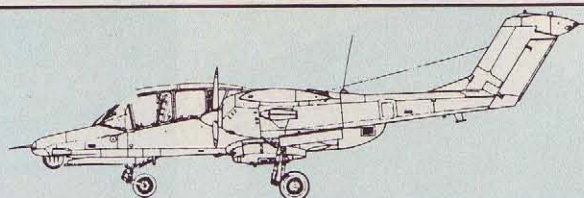


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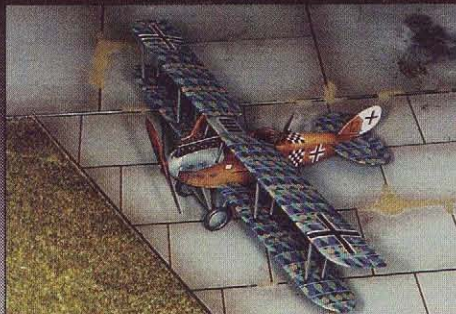
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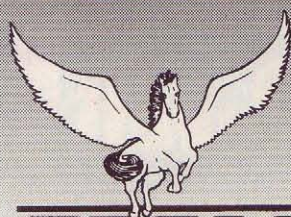
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